# THE CULTIVATOR.

TO IMPROVE THE SOIL AND THE MIND.

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## Agricultural Schools.

An Institution for practical agricultural education is becoming more a desideratum every year. Before the soil had suffered from continual draughts upon its productiveness, its fertility gave the farmer no reason to doubt that its resources were inexhaustible; but when his crops, with the same cultivation, are lessened season by season, he asks for a remedy for this evil. That experience alone, in the same beaten track, will produce any higher result, is an idea which the many worn-out farms disproves sufficiently. There must be "an instauration from the very beginning"—a right commencement, and a proper and continued attention to preserving the heart and vitality of the soil, if its worth is to be retained, not only unimpaired by culture, but always improving. There are facts connected with tilling the soil, which the day-laborer could never discover, or at best, only after a succession of repeated failures, which in all probability would have made the richest lands almost a desert, and the experimenter too old to reap much reward for his exertion. It is urged, on the other hand, and with some force, that the laboratory of the chemist is not the place to acquire valuable information on practical agriculture,—that farmers are dependant on the labor of their hands for their support, and have not the means to devote the flower of their youth to scientific study. It is said that nature is the only proper laboratory for the sons of the soil, and the sun, rain and virgin earth, all the needful chemical agents.

That objections like these are not well founded, and can have but little weight, must be evident on reflection. Soils do deteriorate, crops decrease, fruit trees become diseased or die through utter neglect, and the staple products of farms suffer from blight, or other unknown causes. The investigations of inquiring scholars have already thrown much light on these subjects, and agricultural papers have done what they could to keep the public informed, and to promote further reseach. Yet there is something wanting, and that seems to be a means of imparting just the information needed, and that so explained and brought down to common apprehension, that the intelligent culturist can make farther and certain progress. To supply this want, efforts have been made from year to year to induce the legislature to endow an Agricultural College in connection with a model farm, but without success. Many think the time has not yet come when such an institution can be made successful, without greater expense and risk than the demand will warrant.

It has long been our opinion, that the true interests of agricultural education would be best promoted by the establishment of an institution like the one proposed by Prof. NORTON, under the auspices of the University of Albany, the prospectus of which was given in our last No. It does not propose to make an adept chemist, mineralogist, or geologist of the student; but simply, by a course of lectures, adapted to the sphere of the farmer's observation, to acquaint him with the general principles of the composition of soils, the best methods of fertiliz- and invorating them, the theory of rotation in crops, and the general improvement of plants and animals. The advantages of such a course of lectures are ably set forth in the circular, and the value of the knowledge that can be obtained by instruction thus communicated—by the mutual sharpening of mind with mind, and the influences that cluster around an institution where combined effort for a given end is being made, cannot well be estimated.

To those who have been readers of the Cultivator, we need not speak of the ability of Prof. NORTON, his clear views on all practical as well as scientific subjects, and his capacity to impart valuable instruction. Among profoundly learned scholars in his department, he holds an eminent rank, and his knowledge is of that available sort which adapts itself to the popular demand.

We hope the friends of agricultural education throughout the state will aid this effort. Provision has been made by the Trustees of the University for the gratuitous attendance of two young men from each Senatorial district in the state, upon the course of lectures the ensuing winter; and those who feel an interest in this subject should see that this liberal offer is not lost to the community. We know of no way in which so much can be accomplished for the cause of agriculture, at so small an expense; and we cannot doubt that the return of a class of seventy-five or a hundred young farmers, from such a course of instruction, to their summer labors, in different parts of the state, would be the means of awakening an ardent desire in others to avail themselves of a like benefit, and secure without further effort, a full attendance in the future. Thus a sure foundation will be laid, upon which can be erected an institution which will supply our wants, without the possibily of a failure—will grow up with our growth, and strengthen with our strength. Neither public or private munificence will be withheld when the community become convinced that our farmers need its enlargement, and will avail them-

selves of its advantages. We do not see why this Institution need wait long to secure the confidence of the farming population, and acquire the reputation it will justly deserve. Let it receive prompt patronage, and it will not be long before its influence will be seen in improved farms and enlightened farmers.

## Analysis of the White Sugar Beet.

By J. H. Salisbury, M. D.

For the samples examined I am indebted to the kindness of S. G. Noyes, Esq., of Greenbush. They were very large, fleshy, and crisp. Average length of root, 18 inches. Average widest diameter, 4 inches.

*Percentage of Water, Dry Matter, and Inorganic Matter.*

| | Root. |
|---|---|
| Percentage of water, | 90. 55 |
| do dry matter, | 9. 45 |
| do inorganic matter, | 0.995 |
| do do in dry matter, | 10.534 |

The above results show this variety of beet to be highly charged with water, of which it contains 90.55 per cent; leaving of dry inorganic matter only 8.455 per cent, and of inorganic matter, 0.995 of one per cent. The fresh roots contain about one pound of inorganic matter to the hundred, the dry roots 10½ pounds. 10.050 lbs. of the fresh roots yield 100 lbs. of inorganic matter.

*Composition of the inorganic matter of the roots.*

| | |
|---|---|
| Carbonic acid, | 17.31 |
| Silicic acid, | 0.78 |
| Phosphoric acid, | 10.80 |
| Phosphate of iron, | 0.91 |
| Lime, | 1.85 |
| Magnesia, | 1.09 |
| Potash, | 13.42 |
| Soda, | 50.84 |
| Chlorine, | 0.78 |
| Sulphuric acid, | 1.76 |

The analysis shows the inorganic matter of this variety to be made up mostly of soda, potash, and phosphoric acid. Besides these three, it contains in small proportion, lime, magnesia, sulphuric acid, chlorine and iron. The analysis readily suggests the materials best suited for its inorganic nourishment.

*Proximate organic composition of roots.*

| | 100 parts of fresh roots. | 100 parts of dry roots. |
|---|---|---|
| Water, | 90.550 | |
| Fiber, | 2.295 | 24.039 |
| Sugar, | 5.730 | 60.023 |
| Dextrine | 0.440 | 4.608 |
| Casein, | 0.595 | 6.242 |
| Albumen, | 0.443 | 4.617 |
| Starch, | trace. | trace. |
| Resin, | 0.020 | 0.260 |
| Gluten, | 0.015 | 1.157 |
| Oil, | 0.010 | 0.105 |

In the above analysis we see the nutritive qualities of this variety of beet. One ton of the fresh root contains of sugar, 114¼ lbs.; of dextrine, 9 lbs.; of albumen, casein and gluten, 21 lbs.

*Ultimate organic composition.*

100 parts of dry roots gave of

| | |
|---|---|
| Nitrogen, | 1.465 |
| Carbon, | 40.729 |
| Oxygen, | 41.511 |
| Hydrogen, | 6.529 |
| Inorganic matter, | 10.534 |

*Albany, Oct.*, 1851.

Deep Plowing, on some soils, improves them astonishingly. The Michigan Farmer says that Lewis Cone, the great wheat grower of Oakland county, in that state, commenced his system of deep plowing 15 years ago, since when his wheat crop has been more than doubled, taking one year with another, through the whole time.

## Manure---Query.

Eds. Cultivator—It is a query amongst farmers in this neighborhood, (and probably elsewhere,) whether stable manure, hauled out and spread upon oat stubble, preparatory to sowing wheat, thus exposing it to the action of the sun and dew during a continued drouth, will lose much or any of its fertilizing properties. Some are of the opinion it will not, believing that the generation of ammonia is prevented by its being thus scattered, and therefore none of the active principle can be lost by evaporation. If any of your able correspondents can give any information upon the subject, tending to a satisfactory conclusion, it will be gladly received. John J. Moore. *Quakertown*, 8 *mo.* 11*th*, 1851.

The nitrogen of animal manure is converted into a carbonate of ammonia by fermentation. It is in this state both soluble and volatile. Therefore when manure containing ammonia is spread out, exposed to the direct action of the air, more or less loss would ensue. When guano is spread on the surface of dry ground, and left uncovered, it is in a great measure lost, unless rain enough soon falls to dissolve the ammonia and carry it into the soil. If the surface was hard, so that water would not soak into it, the ammonia, if brought into solution by rain, would be mostly washed off. This illustrates the effect which would take place with stable manures. If the manure should be spread before fermentation takes place, the loss of ammonia would undoubtedly be less, but that there would still be a loss of fertilizing properties, is at least probable. The solid excrement, which is dropped on pastures by horses and cattle, does comparatively but little good; it gradually wastes away under the effects of rain and evaporation, without producing very marked results on the herbage. The urine, however, which soaks at once into the soil, shows its effects in a striking manner. We would suggest to those who deny that manure can be wasted by evaporation, to try an experiment by placing 1,000 pounds in shallow troughs, or in a basin formed of rock. Here let it be exposed as much as possible to the alternate effects of rain and sunshine, thoroughly wet and dried as often as practicable—for a year or longer. Then let it be applied to any crop, under the same circumstances, with 1,000 pounds of the same kind and quality of manure, as that which had been exposed was at the beginning of the experiment, and compare the yield produced by each lot. Eds.

Sheep Poisoned by Peach Leaves.—The poisonous quality of the leaves of the wild cherry has been long known, and cattle and sheep have frequently lost their lives by eating them. The substance which produces these effects, is supposed to be prussic acid. Peach leaves are known to contain this acid, and a writer in the *Wood-Grower* states that two sheep had died from eating freely of peach leaves. Various remedies have been given for the relief of animals which have eaten poisonous substances. In regard to sheep and cattle, we have formerly experienced good success from giving as soon as the illness of the animal is discovered, sweet-oil, lard, or butter, mixed with salt. For a sheep, a gill of oil, with a table-spoonful of fine salt, was the quantity given. A cow might have four times that quantity. It is very important that the dose be given as soon as the symptoms of poisoning are manifest; the longer it is delayed, the less likely it will be to afford relief.

## Agriculture of Illinois and Iowa.---No. 1.

BY W. G. EDMUNDSON.

EDITORS CULTIVATOR—Probably no portion of the North American Continent, presents larger claims upon the attention of the friends of agricultural improvement, than the states and territories bordering on the upper Mississippi and her tributaries. The strong arm of science has, in rare instances only, been employed in the development of the unrivalled agricultural resources, with which this vast region abounds. No portion of the inhabited globe can boast of so great an extent of rich, fertile, alluvial soil; and the climate is sufficiently various to suit the tastes of those who admire a high degree of latitude, as well as those who may prefer the summer temperature of the tropics. The northern wheat belt of the Union is embraced within the lines of latitude constituting the upper Mississippi valley, and the period is not far distant when the cultivation of the cereal grains will become as extensive, and as profitable, as is now the case in Ohio. Like those who have preceded in their journeyings through this country, in search of agricultural knowledge, we have been in many important particulars doomed to disappointment. We expected to have found a country teeming with substantials and luxuries, such as abound in every country distinguished for its high state of civilization and refinement; and we took for granted that on the rich prairie soils at least, the squalid wretchedness, which frequently may be met with among the white laboring population of the south, would nowhere be seen on the fertile plains of the upper Mississippi. The masses of the rural population are not so comfortably clad, their houses and out-buildings are not so neat and commodious, their farms are not so well cultivated, and in an average of cases so productive, as may be found in the new settlements of a timbered district in Ohio or New-York. These conclusions have not been rashly formed; but have been forced upon our mind, greatly against our will, after having spent some six weeks among the farmers for the express purpose of obtaining a knowledge of their habits and customs, and especially an acquaintance with their systems of agriculture.

The people who have migrated to this country, are generally those of the laboring population of the oldest settled states of the Union, and also of the same class from Europe. They landed here with limited means, and many of them with large families, and generally settled along the borders of streams, contiguous to timber, where, in the process of acclimation, they became exposed to the malaria, so common in all rich alluvial countries. Uncomfortable dwellings; a coarse and somewhat unpalatable diet; deprivation of the common necessaries of life; and a thousand other inconveniences, that necessarily fall to the lot of a frontier people, have had the obvious tendency of blunting the finer feelings of those who had the hardihood to leave their happy homes, for the purpose of building up our western cities, towns and rural settlements. Thousands who came to this country at an early day, dreamed only of becoming wealthy and comfortable, by the extent of their landed operations. Fields less than a quarter section each, were considered too trifling for a prairie farmer; and corn, wheat, and other crops were cultivated on a large scale in the most slovenly manner. For a time, the yield continued to be abundant, and owing to the low prices of produce, and the great distance to which it had to be transported to market, the most slovenly systems of farming practiced in any country, found favor, even among many who, formerly, when doing business in the eastern states, were considered among the most enlightened cultivators of the soil in their respective neighborhoods. By these and other influences, farming, instead of taking a high rank, appears to have been gradually on the decline, and the hackneyed expression of *hard times* is more commonly heard in this country, than in any portion of the Union, through which we have traveled.

The foregoing is the dark side of the picture, and right glad would we have been, had it been in our power, to have blotted out of our remembrance, the strong and unfavorable impressions that on all sides forced themselves upon our mind, whilst critically examining the character and condition of the agriculture of the rich and fertile lands that universally abound on both sides of the upper Mississippi. Much, very much, however, can be said on the other side of the subject, which will greatly relieve the mind of the reader from any unfavorable impression that may have obtained credence through the somewhat startling facts enumerated in these prefatory remarks. Honorable exceptions to the general prevailing systems of agriculture are frequently to be met with, and occasionally whole settlements are to be found, where the inhabitants evince as much enterprize, and entertain as exalted notions of improvement, as in the most highly cultivated sections of New-York. Besides this, farming in these sections of country, affords as liberal a profit when conducted on rational principles, in proportion to the amount of labor and money expended, as in any portion of the Union. This is especially the case within the past five years, owing to the fact that the southern markets for all the leading staples, are quite as good and reliable as the northern markets, and besides a given amount of capital expended in agriculture will afford on a rich prairie soil, a much larger return than on the best farming lands of the eastern or northern states.

The impression has become pretty general in the oldest states, that the day has gone by when a profitable investment can be made in Illinois and Iowa, in the purchase of lands for agricultural purposes. A greater mistake than this could not possibly have been made, and the evidences on all sides are abundant, that yearly the chances for making handsome sums, by purchasing real estate for the purposes of practical farming, are and will be on the increase. The resources of the country bordering the whole of the Mississippi waters, are of such an extraordinary rich character, that having been once brought under favorable notice abroad, they cannot long remain undeveloped. The great thing most required in this charming region of country, is a liberal investment of capital and skill in the business of agriculture. Many false impressions have gone forth in regard to the capacity of this country; and not a few suppose that it is more severely afflicted with pestilential and contagious diseases, than the Atlantic states; and what may be the

case with a few isolated places, is taken for granted to be general. In preparing some original papers on the agricultural and other resources of the west, we shall be influenced entirely by a strong desire of doing justice to all sections of the country, and whilst the bright side of the picture shall be constantly presented to the vivid notice of the readers of the Cultivator, we shall not fail to expose, in a becoming manner, any glaring defects that may come under our notice. Indeed, our object is not so much to criticise, as it is to place before the public an array of facts and deductions, based upon the enlightened practice of others, which shall have for their object the improved cultivation of the soil, and the elevation of the social and moral condition of the rural population.

The north-western states and territories afford an almost boundless field for the operations of a philanthropic mind; and, judging from what we have already seen, no portion of the Union so much requires the presence of a numerous and powerful band of men, devoted to the introduction of the practical sciences, in combination with the various branches of agriculture. In so great an enterprise, no single individual can do much; but finding that the country is dotted over with many intelligent farmers, who are anxiously endeavoring to sift the wheat from the chaff, by reading the mass of agricultural literature with which our country abounds, and by adopting a course of experiments based upon the most enlightened practice, we have reason to take courage, and have faith that every facility will be afforded, that could be desired, to enable us to bring into notice the present and probable future condition of the states and territories bordering on the upper Mississippi.

The manner of arranging our matter will be somewhat varied, to suit the exigencies of the case; but for the present, we shall content ourselves in discussing a few subjects under appropriate heads, in the hope that we shall be able to remove many false impressions that have obtained favor by those who have never personally investigated the matter.

The Cultivation of Wheat.—For the past five years, the wheat crop has been a partial failure throughout the entire prairie country of the west. The causes producing this result, have been various, and in no two seasons of a similar character. The losses already from this source, have been such as to dispirit the wheat growing farmers, and many are now turning their attention to other branches of agriculture. The Hessian fly, the blight, the rust, and winter-killing, are the main agencies through which these unexpected losses have been brought about; and it is now thought questionable by many sensible farmers, whether a prairie country can be made profitable for the cultivation of winter wheat. No one doubts the capacity of the soil for the production of breadstuff, but the opinion is gaining favor that it is useless to attempt it on a large scale until some better plan of managing the crop is discovered, which will admit of general adoption. How far this opinion may be true, it will be our purpose to investigate, and in doing so, we shall be influenced by the single motive of affording as much information upon this difficult question, as our limited acquaintance with the country, and the prevailing system of agriculture practiced, will enable us to do.

Before suggesting any plan for the amelioration of the condition of the wheat growers of Illinois and Iowa, it would be well to first investigate the plans of culture that are ordinarily practiced, and then we shall be better understood when submitting our views for public criticism.

The recently broken prairie sod, is now thought the most certain preparation for a winter wheat crop. The sod is usually broken in June and July, and if the rot be perfect, it is plowed the second time, mostly lengthwise of the furrow, the last of August or in September, and sowed with wheat, at the rate of about six pecks per acre. By far the greater portion of the sod is only once plowed, and when it becomes well rotted, is harrowed with a heavy inplement, and sown in the early part of September, covering the seed with the harrow. Neither fine seed harrows, or drilling machines, can be used to advantage on recently broken prairie sod. The whole process, necessarily, has to be done in the roughest manner, and with but a trifling cost, yielding in an average of cases, from 10 to 15 bushels of marketable wheat per acre. As in Ohio, wheat frequently is made to follow in succession after a corn crop, and sometimes is sown among the standing corn, but generally is cut up and shocked in parallel rows across the field, leaving strips to be sown with a spring crop. The growth of weeds in a majority of cases, becomes so rank before the period of sowing the wheat, that the seed cannot be covered with anything like neatness, and to the mind of a tidy farmer, the whole process of sowing wheat after corn, cannot be viewed in a favorable light, and from the frequent failures from this source, has now but few advocates. Occasionally, naked summer fallows are attempted to be made, but with what success the reader may judge, when we state that stubble, or other land, is commonly broken up in June, and is then allowed to remain almost untouched, till the latter part of August, when it is again plowed for seed, in broad, flat lands, and the seed sown and harrowed in, without making water furrows for carrying off the redundancy that more or less remains in the surface in winter and spring months. By thus plowing the summer fallow only twice, and that too, not exceeding some four inches in depth, the ground becomes covered with a thick growth of weeds, ranging from two to four feet in height, which to an eastern farmer would at first sight appear to be an insuperable barrier against anything approaching a profitable course of farming.

The foregoing, and other practices of a similar character, are among the prevailing modes of farming that are tolerated in those regions of country where the alarm of hard times, and the failure of crops, are the most frequent. But it must not be taken for granted that no exceptions to these slovenly operations are to be met with. On the contrary, some of the finest specimens of farm management, are occasionally to be seen, as exist in any of the most celebrated wheat regions of the Union.

Those who have adopted the modern improvements in the cultivation and management of the wheat crop, have, aside from the contingencies always more or less attendant upon the success of this delicate crop, been richly rewarded for their trouble. Where deep plowing, and

that, too, when practicable, in autmn, and the liberal cultivation of the clover plant, have been at all extensively practiced, the average product of wheat has been in almost every instance, remunerative. The cultivation of the soil, when done in a through manner, is found to be as productive in profits, in an average of cases, on a prairie soil, as on timbered land. But the great barrier to improvement in this, as well as other countries, may be traced to the fact, that the cultivators of the soil themselves have not been able to trace unerringly, the failures to their true cause, and hence, have not been able to adopt those salutary means of improvement which would thoroughly remove the agencies producing those failures. Occasionally, the severity of the weather, or other causes, present insuperable difficulties that cannot be counteracted by the most skillful cultivator; but on the whole, these may be viewed as exceptions, and not the general rule.

The natural tendency of a rich prairie soil is to be inert, and in order that it may become active and friable, it is necessary to bring to bear upon it powerful mechanical agencies, such as may be easily and cheaply employed by the farmer. Its latent powers, it is obvious, from the long period in which the small particles of the soil have remained buried beneath the surface, too deep to receive any benefit from the action of the rays of the sun, and atmospheric influence, can only be brought into active and profitable service, by those parts being acted upon by winter frosts, thorough cultivation and deep plowing, and by the puncturing operation of tap-rooted plants. The soil of this country contains all the requisite organic and inorganic properties, to fit it for the production of cereal as well as other grains for an almost indefinite period. No one can doubt this fact who will take the trouble to investigate the surface and subsoils to the depth that plants send down, if permitted, by deep tillage, their fibrous roots in search of the requisite food for their growth and maturity. It is the business then, of the husbandman to aid nature in her efforts to supply the human race with the necessaries and luxuries of life, and if he fails in doing this part, the miseries that are entailed upon all ranks of mankind are too obvious to require enumerating.

We hold that deep culture, autumn plowing, a rational rotation of crops, and the extensive cultivation of the clover plant, are among the prominent features that must be engrafted upon the agriculture of the west, in order that it shall take rank among the profitable and pleasurable pursuits of our country. Among the most important of those means for the amelioration of a soil rich in humus, lime, potash, and all the other requisite elements of fertility, are frost and clover. The clover roots ordinarily enter the soil to the depth of from twelve to twenty-four inches, and the frost and air, following the course of these roots, have by a gradual process, a mechanical action upon the soil, to the full depth they puncture the surface, which in due time change its stubborn character, converting it into a finely pulverised soil, adapted especially for the cultivation of the wheat plant. The soil does not require to be enriched by plowing under a heavy growth of clover, as would be found advisable on thin soils, such as are found on the uplands bordering the Genesee valley, but is solely required for the reasons already stated, the proof of which will be more fully illustrated on future occasions, when discussing this and other subjects of a kindred character.

We find the space alloted us for this paper is exhausted, and the items we proposed at the start to have discussed, are of sufficient interest to those who are desirous of becoming acquainted with the capacity of the west, for the profitable culture of wheat, to warrant their further elucidation in the December No. of the Cultivator. *Keokuk, Iowa, Sept.* 1, 1851.

## Sketch of Putnam County Farms.

FARM OF LEONARD D. CLIFT.

EDITORS CULTIVATOR—My time has been so much occupied of late, that I have not been able until now, to perform my promise of giving you a sketch of a Putnam county farm. The one I have recently visited with a view of giving you notes of it, is that of LEONARD D. CLIFT, of the town of Carmel. I will begin by saying a few words of the

DRIVE TO MR. CLIFT'S.—It was a fine August morning when I left home; the weather was excessively dry, but still the country wore a beautiful aspect for my eyes as in truth it always does. Part of my route skirted the northern extremity of the county of Westchester, and I saw there some fine farms and pretty scenery, to which the clear sunshine and soft summer air lent a peculiar charm. After a ride of some seven miles I reached Lake Mahopac; the suddenness with which this beautiful lake first bursts upon the view of the traveller, is such as to produce emotions in the mind of one who is an admirer of nature, more easily felt than described, and often as I have visited this charming scene it never grows wearisome to me; without the least intimation, upon rising a slight eminence, the lake in all its beauty for a distance of nearly three miles, is before you. I cannot loiter here to tell you of its beautiful islands—of its clear waters—of its pebbled shores, but passing on, ride along its margin for two miles, when the quiet scene that was before me but a few moments ago, is changed to one of busy activity. Here are situated the hotels filled to overflowing with men, women, and children, who have left the crowded city to seek a cool and healthy retreat by the margin of Mahopac. Here too are all sorts of scenes, some rowing on the lake, some fishing, some walking too and fro on its margin, others sitting in the shade of the balcony enjoying their "otium cum dignitate," while umbrellas and large-brimmed hats, both for ladies and gentlemen, told that the wearers were not disposed to brave the piercing rays of the god of day, to which we farmers are exposed. But good bye to the lake. Half an hour more brought me to the

FARM OF MR. CLIFT.—This consists altogether of about 280 acres of land, 35 of which is woodland, the rest tillable. The soil of the farm was originally a heavy loam, but good culture has made it a rich, deep, light loam. His *home* farm contains 160 acres, and this has been the especial care of Mr. Clift. Thirty-six years ago when Mr. C. first took possession of the farm, its aspect was very different from what it is at present, at least I should judge so from an anecdote he told me. Pointing to a beautiful meadow covered with verdure,

he said, that field when I first came here was a swamp, covered with alders and bushes and briers of every description. The first year I was on the place after working my oxen one day till 12 o'clock, I turned them there, intending to use them again in the afternoon, but it was the last I saw of them that day; they got lost in the bushes, and when I found them it was too late to go to work with them. What Mr. C. said of that field, was true of pretty much all the farm—it was both wet and stony. To begin at the beginning and tell step by step the various plans and operations of Mr. Clift, would occupy more space than I can claim in your columns; suffice it to say that every part and portion of the farm, with the exception of about three acres which is yet to be reclaimed, and which is a fair specimen of what the rest was once, has been subdued and brought into a very perfect state of cultivation—indeed it is not too much to say that this farm is a model farm—everything about it speaks of permanence—whatever has been done has been well done. Here are no unsightly hedge rows to be seen, no scattered patches of bushes about the fields—no broken down fences—nothing at odds and ends. It is no idle praise I utter when I say, that go where you will about the farm, you will find a place for everything, and everything in its place. But I must proceed to give something in detail as to Mr. Clift's mode of operation.

Manures.—When I reached Mr. C.'s farm, I found him busy with his men, in clearing out a pond made originally for furnishing ice for his use, but how used also for irrigating some 30 acres of land; in fact the pond answers a three-fold purpose, for besides the two mentioned, it furnishes an abundance of manure from the sediment of the brook, which accumulates during the year. The quality of the manure is good; it is black, and rich looking,—fat and oily to the touch, and as the deposit is only of one year's duration, is probably free from acid matter, and ready for immediate use. His pond has furnished him this season, 160 large loads of manure, which he thinks, for many purposes, fully equal to as many loads of barn-yard manure. Mr. Clift has the same idea of manure that the late Willis Gaylord had, namely, "*with manure you can do everything, without it nothing;*" and he has always acted upon this. His object is to make and save manure in every possible way, and to apply it in such a manner as to do good.

Plowing.—Mr. C. keeps about 20 acres under the plow; he always manures heavily and plows deep—he has never sub-soiled, although he thinks it might be done to advantage on his lands. His crops of corn are usually from 60 to 70 shelled bushels to the acre. Oats about 30 bushels.

Chief Products of the Farm.—Formerly, the farm of Mr. Clift was devoted to the keeping, raising, fattening, &c., of sheep and cattle; but since the opening of the Harlem railroad to Dover, Mr. C. has changed from sheep and cattle, to cows. The farm is now what is called a milk farm—50 cows are kept for furnishing milk, which is taken to Croton Falls, 1½ miles from the farm, and goes from thence to New-York, per railroad. The milk is contracted for in New-York, and sold at four cts. per quart—cream thirty one cents per quart. Mr. C. exhibited to me his book of sales for milk and cream, for 12 months; they amount to the sum of $3,600.

Cows.—His cows are selected with great care, and are all of them what is called the native breed. Mr. C. prefers them altogether for our climate and part of the country, and thinks them generally superior as milkers. He has an Ayrshire bull four years old, a truly fine animal, which he intends crossing with some of his natives. He prefers the Ayrshires to the Durhams, as he considers them tougher and hardier, and therefore better adapted to our mountainous region.

Barns, Stables, &c.—Mr. Clift's accommodations for stabling, &c., are ample. During the summer the cows are let to roam in luxuriant pastures, but as soon as the cold weather sets in they are provided with good stables, well arranged for convenience, and fed hay, stalks, and slop of some kind, made from buckwheat bran, rye bran, or corn and cob ground together. Mr. C. has but a poor opinion of turneps for milch cows, but thinks carrots a valuable root for them. There are four barns upon the farm, two large and two small ones; the four are capable of holding 100 tons of hay.

Hay.—The quantity of hay cut annually, is from 100 to 150 tons. The time of cutting is when in full bloom. Timothy, red-top, &c., are always cocked the first day, and cured in two days, when the weather will permit. When the hay is stacked or put in the barn, Mr. C. uses about four quarts of coarse salt, and two quarts of lime, well mixed together, to about one ton of hay. The hay I saw certainly denoted care and attention in cutting and curing. It was green and bright, but still entirely free from anything like must.

Fences.—These are entirely of stone—there is not on the whole farm 20 rods of rail fence. The size of the fields are from three to five acres. The walls are all large, most of them are full four feet bottom—some even more; they are all settled in the ground to avoid being thrown by the frost, and to insure their durability.

Irrigation.—This is one of the leading features about Mr. C.'s farm. I have mentioned his pond which was originally constructed for ice—after it was done, a thought struck him that he might (if the altitude of the pond would permit) use the water to irrigate some of his meadows. To the eye it seemed a doubtful matter, (and here let me remark that the eye, even though a practiced one, much less an unpracticed one, should never be trusted in so important a matter, for the formation of the ground, intervening between two points, is often such as to deceive us, and make us think the water would be obliged to run up hill before it could accomplish what we wish,) but a level having been obtained, it was proved to the delight of Mr. C. that the plan was perfectly practicable. It was therefore immediately put into execution, and the result has been the watering of 30 acres of meadow, and the addition of some $300 to his annual income thereby. It is worthy of remark that much of the ground now watered was formerly wet, so much so as to require under-draining; the drains now perform their good work and the land is dry, sufficiently so to make irrigation most valuable upon it.

The plan pursued is as follows: below the flue are three main ditches going in different directions, and from them run smaller ones in such manner as to carry the water all over the fields. Mr. C. generally allows as much of the whole stream as is required for the purpose of ir-

rigation to run in one of the main ditches for eight hours, then changes it to another for about the same period of time, and then to the third. There is an advantage in this—the grass is not kept *continually* wet, and the danger of a too rapid and spindling growth is avoided; when grass on watered meadows grows too fast and falls down, as all know, it is light, hollow, and of little value, but when a steady growth takes place, the value of the grass is equal to that of the best grasses which are not aided in their growth by the use of water. An opinion seems to prevail with some that if the water ceases to flow upon watered meadows from drouth or other causes, they will in consequence become more parched and feel the dry weather more than if they had not been watered at all. This I am convinced is a mistake. I saw at Mr. Clift's some fields, which, owing to the excessive dry weather and consequent low state of the streams, had not had a particle of water upon them for something like six weeks, and yet the grass upon them was rich and luxuriant, and bore a striking contrast to other fields which were out of the reach of irrigation. Nor is it alone at Mr. C.'s I have noticed this; wherever my observation has extended the result has been the same.

General Arrangement of the Farm.—There is upon the farm of Mr. Clift great attention paid to making everything as convenient as possible. Water, that indispensable requisite for man and beast, abounds every where. The house, the barns, the yards, are all amply supplied, and care is taken that at no time shall those supplies be cut off, at least so far as lies within the power of man to provide against the contingencies of drouth, &c. I give the following as an example. Several springs are connected by means of lead pipes, so that in the event of the main spring which supplies the house becoming low, the others are made to flow into it, thus giving an abundant supply at all times.

The arrangement for keeping the mik cool and sweet, between the time of milking and the time of despatching it to the cars, was both convenient and efficacious. A large trough is kept constantly filled with water brought from a spring, through lead pipes, and if required, ice can be added to make the water colder.

An ample ice-house adds much to the comfort and convenience of the household. The milk-house, where the butter for family use was manufactured, was built of stone, and so constructed as to combine convenience and good ventilation. There was one thing which could not fail of attracting my attention, and that was the perfect neatness, both in this and other household departments, which came under my eye, and which fully assured me that Mrs. Clift was a true farmer's wife, and that her duties were by no means neglected.

Reflections.—I have now taken a rapid survey of Mr. Clift's farm; the few hours I was there did not allow me time to make as thorough detailed an examination of everything I saw, as I could have wished, but it may serve to convey to the reader some idea of the cost and labor which has attended the progress of its owner, as step by step, he has brought it from its former wild condition, till it now "blossoms like the rose," and now, perhaps, as that reader, who may be a plain working farmer, with small means, thinks of the ample barns, the large stone walls, and the numerous conveniences, he will say to himself—"Yes! this is all very well, but no doubt Mr. Clift started the world with a handsome sum of money, and money can accomplish many things." It is not my wish here, to bring the private affairs of any man before the public; this, however, I will say, that Mr. C. has made the bulk of what he now possesses from his soil. He is, and always has been, a *working farmer*.

The means with which he started the world, were small, when compared with the end which has been obtained. Mr. C. has always gone upon the principle, that without labor no great thing can be achieved, and he has argued, also, that if he could make his own labor profitable, he could make that of another so, and he has, therefore, never been afraid to hire help when needful.

The sums paid out for labor have been large, and have been met from the profits of the farm. Now, in regard to hiring labor, I cannot but think, that generally, farmers are too much afraid of spending money in this way. If a man neglects his business, does no work himself, and hires men to do for him what he ought to have done himself, he must, of course, make a bad business of farming; but if after doing all he can, he finds things are neglected for want of time, and many things which ought to have been done, are left undone, for want of physical labor to perform them, it is our humble opinion that such neglect will tell against him much stronger than the dollar paid out would have done. One man can perform but a certain amount of labor, and it is folly for him to attempt more than he can perform well—whether the labor be mental or physical. It is a custom with many farmers, when a few dollars more are made than barely enough to support their families, to put it out at six or seven per cent interest, when, had it been invested properly upon their farms, which an inspection would tell stood much in need of it, they might have received 10 per cent for their investment.

Now I am far from recommending the expenditure of money upon a farm by working farmers, for *fancy improvements*; but there is a certain class of improvements which, if judiciously made, will always pay a handsome profit;—good fences, good out-buildings, and all arrangements tending to convenience and labor saving, will be found to pay the farmer a better interest for a while, at any rate, than seven per cent on bonds and mortgages, or money put out on merchants' and traders' notes, who often times make a failure, and rob the farmer of his hard earned gains.

There is one thing that operates much against the improvement of farms in our country, and that is the fact that so few farms remain for a great length of time in the same family. In England and some other countries of Europe, farms remain for years and years in the same family; whether that family is large or small, some one or more of its members takes possession of the homestead on the death of their parents, and works it as formerly. Not so here, even if a man takes the vocation of his father for his own and occupies the same farm, he is not apt to have it long before he is possessed with the idea of "*selling out to go west.*" He will not improve his farm therefore, for he is always *expecting to move*, even if he does not, and he thinks "it will not pay to improve for other folks, for nobody will pay the

worth of the improvements;" so that in fact, often times farmers are found to be constantly getting worse instead of better. There is another thing too that hinders improvement, and that is the fact that so many young men leave their fathers' farms the moment they can escape from them. They will do anything else rather than "farm it." Educate a boy and he is pretty sure to go to the professions. I was struck with this when at Mr. Clift's. During some conversation with him, he stated to me that he wished to part with a portion of his farm. I was somewhat astonished at this, as after all the toil and labor of so many years, I thought he was ready to enjoy himself in contentment under the shade of his own dwelling, or wherever else his fancy might lead him. Upon asking his reasons for wishing to sell he stated that his family had never been large, his children were married and settled in life, and his son whom he had educated handsomely with the intention of making him a farmer, had chosen a profession; this left him in declining years to manage his farm alone, and he felt the care of the whole of it was more than he wished for at his time of life. Now this case is by no means a solitary one; others of a similar nature have come under my observation and have often impressed me with a feeling of sadness.

Such is the feeling towards agriculture by many of our young men, that they will go to fill situations in the large cities, in which they must give up all the freedom and independence of the farmer's life and become almost dependants upon the will of others.

In speaking to a friend, but a short time since, about the education of the agriculturist he remarked, "Educate them! why the moment you educate them they will leave the business—they will not be satisfied with its profits;" and this is the general feeling. When an educated man is found in the ranks of the working farmer, men in other callings and professions wonder at his choice.

Now in the name of reason and truth is agriculture such a poor business—does it afford such a poor return to labor and capital, that no man who wishes to live decently and respectably will enter into it, and that every man who has wit enough to get into any other business will leave it? Is it so menial a vocation as to debar from its ranks the man of talent and education? Heaven forbid! If there is a dark problem about it to be solved it must be solved, and it must be solved too by men of talent and education. Certainly no man will deny that the farmer, of all other men, is entitled, or ought to be from his toil, to all the comforts of life which other men have as the reward of their toil.

If other men in other callings are robbing us of our rights and preying upon our very life's blood, it is time that we call together a convention of farmers to know what measures ought to be taken to secure to us our rights. But if upon reflection we find that we are receiving a fair compensation for our labor and our capital, or that if we do not receive it the fault is our own, and comes from a want of knowledge or skill in our business, let us seek by a more thorough education, both practical and scientific, to acquaint ourselves better with whatever of agriculture we are deficient in. That every man can become rich in any occupation is not to be expected, or even desired, but that the farmer can by industry, energy, and skill, make for himself a handsome competency we believe, and the experience of such men as Mr. Clift fully proves it to us. Very truly yours, H. C. W.

*Putnam Valley, N. Y., Sept.*, 1851.

### The Canada Thistle.

On a recent visit to several counties in the state of New-York, I was surprised to observe the great extent to which the Canada thistle had spread since my departure from this region, thirty-four years ago. At that time, this pest of the farmers was scarcely known; now it seems to be an almost universal occupant of every part of Albany, Rensselaer, Schenectady, and Saratoga counties,—the only counties visited by me,—and I presume of every northern county in the state. Why is this permitted? I saw many of the fields pretty well cleared of it, but in every part visited by me, the road-sides were completely occupied by them, as if these places were reserved by the public as nurseries, to ensure a supply of the pest for all the neighboring lands. I was delighted beyond measure with the wonderful improvements in agriculture, everywhere exhibited; such crops were never seen in my day, in that region; such an appearance of universal thrift, of healthy and prosperous industry, I confess I did not expect to find, even in that hive of busy enterprise. But my picture of rural happiness was bordered and sprinkled—as if intended for embellishment,—with the horrible hedge-hog pest of the Canada thistle, and illuminated brilliantly by the ox-eye daisy. This was not so in my time. Perhaps we then did not possess the cultivated taste enjoyed by our more enlightened successors. Perhaps we were not then thought worthy of a visitation from our northern neighbors. But one thing I well remember. It was a standing rule, a Median and Persian law, that every member of the farm operatives was required to exterminate every pestiferous plant that he met with on the farm or on the road-side—"cut it down, why cumbereth it the ground," was the sentence passed and executed. Had this rule been universal, the Canada thistle would not now have been the theme of comment by every one. The fault seems to be in each man only looking to his own fields, and every body allowing the road-sides to take care of themselves, forgetting that a single plant on the road-side, will replant many fields with its seeds, for miles around it. It is of little use to exterminate the pest in the field, if neighboring plants be allowed to grow.

This evil has now become so great, that the exertions of individuals here and there will be of no avail. Nothing but hearty, unanimous co-operation, can accompish the object. The whole people must act simultaneously. They should set apart certain times from the middle of June to the middle of July, when every body should turn out and make an exterminating war upon the Canada thistle. They should be cut off close to the ground, not so deep as to touch the roots, and the tops gathered into piles to dry, and then burned. Not only the fields should be thus cleared, but all high-ways and bye-ways should be thoroughly cleared. After this general campaign is accomplished, the whole people should form themselves into a guerrilla band, and make individual war upon any thistle that shows its head above ground,

wherever met with. This plan would, in a few years, rid the country of this pest, and nothing else can. For, as before remarked, if a single person in a township neglect his duty, every farmer in the township will suffer from it. A single plant, left on any farm or road to mature its seed, will send the seeds to all the fields for miles around.

The reason why the Canada thistle should be cut off close to the ground, and not disturbed in the roots, is, the roots, every part and portion of them, are furnished with latent wood-buds, which on the roots being cut or broken immediately begin to grow, and thus a new plant will be found for every piece of root, however small, that may be left in the ground. Thus to dig them up is simply to multiply them. But, if the roots are not cut or broken these latent buds never grow, and the whole remains a single plant. Now all plants require the use of the leaves; they serve the purpose of lungs; and if these are continually destroyed for a sufficient length of time the root must perish. Cutting off the top, the whole plant above ground, will accomplish this. I admit this is merely theory. I have had no experience with the Canada thistle. But it is *a* theory that I do not suppose can be refuted by practice. With all other plants of this peculiar nature I have found it effectual, and with all plants that have not those peculiar roots, a single cutting off at the top is certain death.

Whether the simultaneous movement of all the people can be accomplished and by what means, is a question. I fear nothing but legislative enactment could do it. There are always too many idlers and careless persons in all communities to admit of absolute unanimity in voluntary and persevering action in such a work, and nothing but such unanimity and action can ever accomplish it. Republican as I am, I for one would rejoice to see the people forced into their own good by the most strict law the legislature is capable of passing, and I do believe the legislature of any state in the Union possesses the power to compel any man in the state to destroy such pests; because, those who do not destroy all on or near their premises are fostering a nuisance that is highly injurious to their neighbors, and this no man has a right to do even by the common law.

I have writen this without knowing whether the subject has been sufficiently discussed in the Cultivator of late years or not. I presume so interesting a subject could not have escaped attention, and most probably all the suggestions I have made have already been proposed. If so the editor will excuse the trouble I have given him and throw these sheets aside.

The same plan of destruction should be pursued with the Oxeye daisey, except that it is infinitely more easy to effect the object. In the case of both Canada thistle and daisey, the dried plants should be burned, for the seed will ripen if either is in bloom at the time it is cut down, and if not burned they will be sure to make new and extended plantations.

I also observed at Saratoga Springs, especially in the neighborhood of the High Rock Spring, a great abundance of the *Conium maculatum*, the hemlock of the ancients, the deadly poison of all times. At the locality indicated, it is permitted to grow even under the windows of the houses, by the roadsides, and in all open spaces, and children were playing among the deadly plants, as carelessly as if they were among rose bushes. It does seem to me that the people should put a full stop to this growth. They can easily do so by cutting up and burning the tops while in bloom, two or three seasons successively. Yours, GIDEON B. SMITH.

### Premium Cows in Massachusetts.

It is of importance to be able to compare the properties of animals in different sections of the country, in order to judge of their relative value. To make a strictly accurate test, it would be necessary that the animals should be placed in circumstances precisely similar. If the question related to cows, it would be desirable that they should be of the same age, should have calved at the same time, and should have received the same treatment for several months before the trial commenced, and while it was continued. But in the absence of any such accurate trials, we must avail ourselves of the results of such as make the nearest approximation to the desired point. With this view, we have taken some pains to obtain from the *Transactions of the Agricultural Societies of Massachusetts*, for the year 1850, the following facts in relation to the produce of butter by cows which received premiums in various counties in that state. We have directed our attention only to the quantity of butter yielded by the different cows, believing that to be the fairest indication of their value. Premiums were in many instances, awarded for the quantity of milk which the cows gave, in a specified time, but we have generally omitted any mention of these, as, except in cases where milk is sold, the test affords no reliable criterion of value. In many instances, neither the breed or age of the cow is mentioned in the reports; but we have given them where practicable, and also the time of their calving. The keeping of the cows was generally pasture feed only. It is not necessary to say that this varies greatly in value, according to the amount and nutritiveness of the herbage; at the same time it is no more than just to say that the pastures of Massachusetts will not compare in luxuriance with those of New-York, or some other sections.

Warren Averill, Ipswich, exhibited two cows at the Essex county show. One of them, from January 1st to May 20th, 1850—(140 days,) yielded 198 lbs. of butter. During this time it took eight quarts of her milk for a pound of butter; the last week in June, it took a trifle short of eight quarts to the pound. Another cow, owned by the same person, five years old, ("native,") calved August 27th, 1850, gave from 18th to 25th of September, (one week,) 111 quarts of milk, which afforded 12 lbs. of butter.

Wm. S. Lincoln, Worcester,—cow eight years old—calved April 30th, 1850. From June 1st to 9th, afforded 17 lbs. 12 oz. of butter. The same cow gave in the first nine days of Sept., 12 lbs. 12 oz. butter. She also gave from May 16th to Sept. 10th, (117 days,) 170 lbs. 12 oz. butter. Gave in "flush of feed," 16 quarts of milk daily.

John N. Whitney, Princeton,—cow six years old; calved March 20th, 1850. From June 1st to 9th, gave 15 lbs. 12 oz. butter, and from September 1st to 9th,

10 lbs. Another cow owned by the same person, produced from June 1st to 9th, 17 lbs. 12 oz. butter.

Henry J. Reed, Princeton,—cow calved April 26th, 1850. From June 1st to 9th, gave 14 lbs. 4 oz. butter, and from 1st to 9th September, 9 lbs. 4 oz. Another cow owned by the same person, gave in the same time in June 16 lbs. 14 oz. butter, and same time in September 11 lbs. 12 oz.

N. T. Leonard, Westfield,—cow seven years old ("native,") calved August 25th, 1850. In ten days in September, gave 19 lbs. 13 oz. butter.

Benj. H. Stedman, Chickopee,—cow eight years old, ("native,") calved February 21, 1850. In ten days in March, gave 19 lbs. 4 oz. butter; and from 10th to 20th of June, 17 lbs. 12 oz. During the time first mentioned, the average weight of the milk was 41 lbs. 4 oz. per day, and during the latter time, 34 lbs. 4 oz. per day.

J. M. Montgomery, Great Barrington,—cow calved April 10th, 1850. From 1st to 10th July, she afforded 17 lbs. 10 oz. butter; from 1st to 10th September, 16 lbs. 2 oz. The average weight of the milk at the trial in June, was 41 lbs. per day. Her feed during both trials, was grass only.

W. W. Hallenbeck, Great Barrington,—cow calved July 20th, 1850. From the 1st to the 10th of September, she afforded 17 lbs. 8 oz. of butter; from 11th to 20th, 19 lbs. 6 oz.—weight of milk averaging 36 lbs. 8 oz. per day.

John G. Wilson, West Stockbridge,—cow calved April 1st, 1850. The second week in June she gave 14 lbs. of butter; the first ten days of July, 18 lbs. 8 oz.; first ten days of August, 16 lbs.; first ten days of September, 14 lbs. 14 oz. Feed, grass only.

B. A. Race, Egremont,—cow yielded in the first ten days of June, 14 lbs. 11 oz. butter; first ten days in July, 13 lbs. 12 oz.; first ten days in August, 11 lbs. 8 oz. She was pastured in the highway all the time, and was fed with two quarts of "provender," (corn and oats ground together?) per day.

Stephen Karner, Egremont,—two-year-old heifer,—calved 23d May, 1850. In the first ten days of June, she afforded 10 lbs. 6 oz. of butter; first 10 days of July, 10 lbs. 14 oz.; first ten days of August, 10 lbs. 2 oz.; first ten days of September, 9 lbs. 6 oz. Her feed, the whole time, grass only.

To the above we may add, that S. G. Atherton, Harvard, Mass., states in the *Massachusetts Plowman*, that he has a "Durham cow, nine years old, which calved in April," and gave in the first seven days of July, 278 lbs. of milk, from which was made 13 lbs. 8 oz. of butter. He says he has another cow, (breed not mentioned,) six years old, which gave in the same time 259½ lbs. of milk, which gave 12 lbs. 9 oz. of butter; and a three-year-old heifer, which in three days in June, gave 4½ lbs. of butter. The feed of all during the trial, and for some time previous, pasture grass only. He states that these belong to a lot of twenty-four cows, all running together.

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Fashion makes foolish parents, invalids of children, and servants of all.

Trust him little who praises all, him least who is indifrent about all.

## On the Value of Results Obtained by Comparative Analyses of Soils.

ANALYTICAL LABORATORY, YALE COLLEGE,
*New-Haven, Conn., Sept.* 24, 1851.

MESSRS. EDITORS—In my last letter, when commencing the illustration of this subject by tables of analyses, I observed that the results there given, were not intended as examples of complete anylyses, but only as having been made for a certain purpose. They may, in fact, as some most important substances were neglected, be called somewhat rough analyses, and as such, may, in some quarters, be looked upon with suspicion; it may even be said, that if the examination had been very minute and critical, much of what now seems different, might have been reconciled, or that the points of coincidence in certain cases, would have been less distinct.

In order to throw light on this point, I will insert here two very elaborate analyses of cotton soils from Mississippi. These analyses were made in my laboratory some time since, by Messrs. Emie and Brewer. The soil A. is from land which now produces fine crops of cotton; the soil B. has been worn out by cotton cropping, and the produce has diminished very greatly. They are of the same character of land, on the same plantation, and were doubtless originally alike in composition. The following results show the differences which now exist.

| | | Soil A. | Soil B. |
|---|---|---|---|
| | Organic matter, | 4.740 pr ct. | 6.290 pr ct. |
| Portion soluble in water. A. 2.470 per ct. B. 0.147 per ct. | Silica, | 1.299 | 0.072 |
| | Alumina, iron & phosp'ic acid, | 0.230 | 0.019 |
| | Lime, | 0.189 | 0.020 |
| | Magnesia, | 0.090 | none |
| | Manganese, | 0.034 | none |
| | Potash, | 0.248 | 0.120 |
| | Chloride of sodium, (com. salt,) | 0.107 | none |
| | Soda, | none | 0.015 |
| | Sulphuric acid, | 0.144 | 0.009 |
| Portion soluble in acid. A. 4.96 per ct. B. 5.19 per ct. | Silica, | 0.409 | 0.920 |
| | Alumina, | 1.644 | 1.820 |
| | Iron, | 1.448 | 0.670 |
| | Lime, | 0.535 | 1.340 |
| | Magnesia, | 0.576 | 0.080 |
| | Manganese, | 0.002 | none |
| | Potash, | 0.348 | 0.070 |
| | Soda, | none | 0.180 |
| | Sulphuric acid, | 0.070 | 0.080 |
| | Phosphoric acid, | 0.092 | 0.003 |
| Portoin insoluble in acid. A. 87.83. B. 88.373. | Silica, | 78.845 | 84.930 |
| | Iron and alumina, | 5.946 | 2.370 |
| | Lime, | 1.098 | 0.260 |
| | Magnesia, | 1.142 | 0.680 |
| | Manganese, | 0.623 | none |
| | | 100.059 | 99.867 |

For the purpose of affording all the insight possible into the nature of the differences between these two soils, the portions soluble in water and acid have been examined separately. The substances soluble in water, represent those immediately available for the wants of the growing crop. The substances soluble in acid, represent the amount that will soon, and is constantly more or less rapidly becoming soluble, so as to enter the plant. That which is most difficultly soluble in acid is undergoing in the soil a gradual decomposition, which is continually and successively bringing small quantities into a condition fitted for the nutriment of plants. The last portion, that which is insoluble in acids, is almost always by far the largest, as in the present case. Even this insoluble part, does not remain unchanged; there are certain influences in the soil which slowly act upon it, and bring, though very gradually, small portions into a soluble state.

Thus, then, we look under the first head for that which

will affect the present crop; under the second, for a supply which will be partially available by the next year; and under the last, we see stores which will ultimately come into use, though not to be considered as producing much effect at any one time.

Following these principles, we perceive that the soil A. has 2.470 per ct. soluble in water, while the soil B. leaves no more than 0.147 per ct., or about one-17th as much. Of magnesia, manganese, and chloride of sodium, there is none; of the phosphates almost none, and of the sulphates almost none. The alkalies, too, are not much more than one third, and lime but about 1-50th. These are most striking and important differences, and show very clearly how little the plants in the soil B. have to depend upon for their immediate sustenance, when compared with those in the soil A.

If we also compare the portions soluble in acid, we find that B. has more which is capable of solution, than A. On closer examination, however, it appears that this superiority is chiefly owing to the fact that a larger per centage of iron and alumina, that is of the less valuable substances, has been dissolved. Lime is also in greatly increased quantity, but magnesia is much diminished, the alkalies are smaller, and phosphoric acid is but about 1-30th.

In the last, or insoluble part, we still find the superiority with the soil A., by reason of its far greater per centage of lime and of magnesia. This soil. then. is superior in every respect,not only in its supplies for immediate use, but in its stores for the wants of future crops. It is, however, in the water solutions, that the most striking difference is manifested. By comparing these in the two soils, the inference may be at once drawn, that the soil B., through constant and long continued cotton cropping, has been specially exhausted of its *alkaline phosphates*. The same kind of exhaustion is apparent, although in a less degree, in the portion soluble in acid.

A rough analysis of these soils would not have given satisfactory results, for the quantities in which the most decisive differences are shown, are the least of all, and could only be determined accurately in a very carefully conducted analysis. These determinations are all verified, and therefore afford as they stand, a beautiful illustration of the proposition with which this letter commenced; that the carrying of our results to even very minute accuracy, only brings out the more striking differences, and gives us new confidence in this department of chemical anlysis.

From the study of these analyses, I was led to the conclusion that the cotton plant drains heavily upon the *alkalies* and *phosphates* of the soil, and therefore recommended the application of manures rich in these substances, to the soil B.

Since that time Mr. O. Judd, has made in my laboratory, an analysis of the ash from a cotton stalk, procured by him in Mississippi. His results being all duplicated, must approach very closely to the truth. The quantity of ash found by him was 3.141 per cent, there being nearly half a per cent more in the top than in the bottom of the stem. The results of analysis give the following as the composition of this ash.

Ash of Mexican Green Cotton Plant.

| | |
|---|---|
| Charcoal and Sand, | 3.76 |
| Silica, | 2.64 |
| Lime, | 19.82 |
| Magnesia, | 3.04 |
| Carbonic acid, | 14.32 |
| Phosphoric acid, | 28.40 |
| Chlorine, | 0.53 |
| Sulphuric acid, | 2.88 |
| Potash, | 24.09 |
| | 99.48 |

This is an examination of but a single stalk, and a single variety of cotton, but it is nearly certain that other stalks, and other kinds, although there may be a certain range of difference, will yet agree with it in their chief features, and in the character of their leading substances We may then with much probability, consider this analysis as presenting the general composition of the cotton stalk. A glance at the column of per centages, will show, that the predominating ingredient is the alkaline phosphates; the phosphoric acid and the potash together, amount to 52¼ per cent. If we substract the sand and charcoal, which are accidental impurities, this proportion will be still farther increased.

We have here only the ash from the stalk; that from the seed would beyond a question show a still larger proportion of alkaline phosphates; these then are clearly, so far as our present knowledge goes, the leading substances in the ash of the cotton plant. This agrees precisely with the conclusion I had previously formed, from the comparison of a worn out and a fresh unexhausted cotton plantation.

The two tables compared above, point with perfect distinctness to the same thing, and while they thus agree in the indication of a most important fact to the planter, they support each other in the vindication of properly conducted, minutely followed, and even elaborate soil analyses.

Such analyses will doubtless present more problems than those that are less complete, and will require a wider range of knowledge for their entire comprehension and explanation; but at the same time they furnish to the instructed eye, data which lead to the most valuable conclusions, and also help to extend the range of our really *scientific* agriculture. Yours truly, John P. Norton.

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Growth of Wood.—The season of the year in which forests are cut off, is believed to have an influence on the succeeding growth. To give some test of this matter, the Plymouth county (Mass.) Ag. Society, offered premiums, several years since, for experiments. A report was made last year, which sets forth the conclusion that—"the nearer the season of the ascending sap, [spring,] wood is cut, the more flourishing will be its succeeding growth." The person who received a premium for this experiment, states that he is "satisfied that the nearer the ground wood is cut, the better; the shoots will start and grow more thrifty, and are thicker and less liable to split down. By cutting wood often, you insure not only the greatest growth of wood but the greatest growth of money. Cattle should never be suffered to run on a wood-lot, while the trees are small."

### Mixing Plaster and Manures.

EDITORS OF THE CULTIVATOR—In the July number of your paper, I notice an article on "Mixing Plaster and Manures." Having had some practical experience in this matter, I will give you the result of it, with my views upon this question.

Several years since, I procured a cask containing 500 lbs. of ground plaster. This was placed in an out-building, where it remained one year, during which time, two or three barrels of urine were poured upon it, a few quarts being applied every day or two. After it had stood a while, by mixing a small particle of the saturated gypsum with an equal quantity of quick lime, and rubbing the two together for a short time, a great escape of free ammonia would follow; and if inhaled by the nostrils it was sufficiently pungent to draw tears, even from the eyes of a stoic. A portion of the ammonia, I presume, was in the form of sulphate, and another in that of carbonate, merely absorbed and retained mechanically, as would have been the case, if the urine had been poured upon clay or loam. At any rate, the amount of ammonia at the end of the year, in the gypsum, was very large, and nearly the whole mass being mixed with the compost heap, exhibited favorable results upon my crops. It will be observed in this case, that a great quantity of water or liquid was used, which served to decompose the plaster. For several winters past, I have almost daily strewed a few quarts of gypsum on my hovel floors, which are nearly water tight. In one of my hovels, where ten head of cattle are kept, I can readily tell in the morning, by the smell, whether plaster was applied or not. For when this has not been strewed over the floor, a very strong odor of ammonia is present, which is absent if gypsum has been used. In this respect my experience differs from Mr. Pusey's. Still, I think from the insoluble nature of gypsum, it has not the quality of *fixing* a very large amount of the ammonia in the solid part of manure. In the rear of my cows I have a water-tight gutter. In this trough the urine is saved, when no litter is used to bed the cattle. If plaster is sprinkled in it, the next morning the liquid in the gutter will be covered with a thin pellicle of carbonate of lime. In this case, the large amount of liquid dissolves or decomposes the gypsum—resulting in sulphate of ammonia and carbonate of lime. The power of plaster for fixing the ammonia in manures, under all circumstances, I think has been greatly over rated. Every body knows, or ought to know, that if newly slaked lime, or unleached ashes, are thrown into the vault of a privy, a great escape of free ammonia ensues. The reason of this is now generally understood. If dry gypsum is used for the same purpose, it has a precisely similar effect, though perhaps in a less degree. Any one having a few quarts of plaster, can test the truth of this at any time in their back-houses. The foul stench arising from a vault, is caused by the decomposition of sulphur, carbon, and phosphorus in the fecal matter, and their union with hydrogen. But when lime, ashes, or *plaster*, are thrown into the vault, the liberation of free ammonia overpowers or destroys the other foul gases, by the greater pungency of the ammonia, and thus everything is apparently rendered sweet.

Gypsum *will* liberate the ammonia from night-soil; doubtless it will have the same effect when mixed with guano. A few weeks since I poured three buckets of putrid urine upon a barrel of unleached ashes, and immediately covered the whole with three inches of finely ground and moist plaster; this I pressed down hard with a trowel. The volume of ammonia eliminated was enormous. The plaster had no more effect in arresting its flight, than a fish-net would have had drawn over the barrel. In regard to the economy of mixing gypsum with manures, I have come to the following conclusions: It will, in some degree, convert a portion of the carbonate of ammonia to a sulphate, or more volatile salt. It will mechanically absorb some; and when mixed with manure, is an easy and cheap mode of applying it to the soil. As far as my experience goes, land dressed with gypsumed manure, is remarkably favorable to a rank growth of clover; and in some sections of the country, a good clover-ley is believed to lie at the foundation of successful farming.

I have recently procured a copy of Prof. Norton's Elements of Scientific Agriculture. In looking it over, I find at page 98, he recommends that the pasty mass of bones dissolved in sulphuric acid, should be mixed "with a large quantity of *ashes*, peat earth, or charcoal dust." If wood ashes are mingled with the fine bone-dust of a button-mould factory, there will be a very great escape of ammonia. Would not the same effect be produced by mixing ashes with the dissolved bones?

At page 107, in sowing guano, he says, "it is best to mix with *ashes*, sawdust, peat, &c."

Unleached ashes will set the ammonia of guano free, as readily as the hydrate of lime. At page 111, it is put down that in "100 lbs of carbonate of lime, or common limestone, are 44 lbs. of water." This is, doubtless, a typographical error. I trust Professor N. will believe I have referred to his book, simply for the purpose of eliciting correct agricultural knowledge, and not in the spirit of criticism.

While my pen is in hand, suffer me to say to your correspondent, W. C. A., of Tioga, who complains of the "fire-fanging" of his sheltered manure, that if he will keep his hogs or young cattle upon the pile, or in any other way tramp it down solid, so as to exclude the oxygen of the atmosphere, he need fear no bad result from sheltering his dung. Does the manure in a sheep hovel heat and mould when trodden down solid by the sheep? No. The same rule will apply to the droppings of cattle when treated in the manner pointed out above. LEVI BARTLETT. *Warner, N. H., August* 5, 1851.

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TROTTING HORSE TRUSTEE.—A correspondent of *Frazer's* [London] *Magazine*, describes the trotting gelding Trustee, celebrated as having trotted, in harness, twenty miles in an hour. He was got by the imported blood-horse Trustee, who was also the sire of the running mare Fashion. Of the gelding, the writer says—"The old chestnut is half-blood; but you would never guess it, so chunky, and thick-limbed, and sober is he His action is uneven, and seemingly laborious; you would not think him capable of covering *one* mile in three minutes, much less of performing twenty at the same rate."

# The Horticultural Department.

CONDUCTED BY J. J. THOMAS, MACEDON, N. Y.

## The Secret of a Great Improvement.

Three agencies have been at work for several years past, in extending to a prodigious extent the planting of fruit trees. One is agricultural publications; another is horticultural exhibitions; a third is the money offered by fruit-dealers in market. There is still another, which to most persons remains a profound secret, (judging from their actions,) although it is comprehended and carried out with great success by a few. If this secret were but well understood, generally, it would certainly give an impetus to the culture of fruit, such as it has never yet received.

It consists simply in a full appreciation of the truth, that *fruit trees, through all stages of their existence, need care and attention.* The gardener, who plants cabbages, melons, and celery, knows that he will get rather a scant reward for his labor, if he takes no further care of them after they are planted; and the farmer who forgets to hoe his corn, potatoes and carrots, will be reminded of his negligence in due time, when the day of need approaches. But a different feeling seems to have fastened on the minds of a great many who set out fruit trees. They appear to take it for granted, that when this is done their labors have legitimately ended, and that nothing now remains but to await their time, and partake of the fruit. Talk to them of watching over and taking proper care of their trees, and they regard it as a grievous burthen that we are about to impose upon them. Show them by actual results that a peck of peaches may not only be had more cheaply, but much better in quality, by reasonable care, and they will perhaps admit it for a moment, but their subsequent practice shows that it was only a floating thought. We see the effects of this mistaken notion in the multitudes of feeble and sickly young trees, enveloped in weeds and grass; in the fruitless plum and apricot trees, which have lost abundant half grown crops by the sting of the curculio; in the destruction of loads of reddening cherries, swept off by flocks of the cedar bird; in the mice-girdled apple trees, the black-knotted plums, the blight-stricken pears, the thriftless peaches, dwindling in premature age, from a want of pruning, or dying of yellows. It is no wonder that many without orchards are deterred from planting by such poor examples, or those who have them, from renewing them, by such discouraging results.

On the other hand, one good example of careful and successful culture,—one orchard or garden filled with clean, thrifty trees, well loaded with delicious fruit, often has a wide and beneficial influence, although the owner may be sometimes pointed at as the "*lucky man*, whose trees seem always to grow better than other people's trees," forgetting the old axiom, that "diligence is the mother of good luck."

## Pomological Meeting at Rochester.

During the late State Fair, two very interesting evening meetings were held at the City Hall in Rochester, for pomological discussion. They were attended by some of the best practical cultivators in the country, and were of much interest to fruit cultivators, as all such meetings must be where so much experience is brought together.

The first evening was occupied in discussing the merits of the *Hawley, Northern Spy, Wagener, Melon,* and *Early Joe,* new varieties of the apple of considerable celebrity in Western New-York.

The HAWLEY was generally admitted to be a fine apple, but subject to specks of bitter rot, which sometimes lessen greatly the value of the crop. On the rich soils of Cayuga county and some other localities, large trees, long in bearing, were stated to have succeeded well and to have borne uniformly fine fruit, while on light soils, its success had been uncertain. Instances, were however given, where it had borne excellent crops on light soils. The convention finally concluded to regard it as a fruit of high quality, but the best soil for its perfection as not yet fully determined.

The NORTHERN SPY, as was to be expected, excited much interesting remark. It had borne finely at Buffalo, besides in its native region, and with fair cultivation (not with the total neglect received by most of our orchards,) will produce good crops. B. Hodge, of Buffalo, said he would not be afraid to plant out thousands of trees for orchard. L. F. Allen said that if farmers would cultivate them as well as they did their potatoes, they would find them one of the best of apples. He found that the upright compact heads were improving as they came into bearing, the loaded branches bending outwards and producing a handsome form. These favorable opinions were in accordance with the general voice of the meeting; a caution was however given, that nearly all the favorable experience had hitherto been with comparatively young trees; and in its tardy bearing, the variety was unfavorably contrasted with the Baldwin—an evil however of only short duration.

The WAGENER did not elicit such general commendation as the Spy. It was admitted to be an excellent bearer, and by some was regarded as of the highest quality as a winter and spring apple, while others did not rate it quite so high. On the whole it was concluded that present information was not extensive enough to recommended it for general cultivation, but only for extensive trial.

In connexion with this fruit, and the caution needed for new varieties, an interesting anecdote was related by P. Barry, showing the eagerness of some for untried fruits. A man had purchased a pear tree of a new and highly vaunted sort. But before it bore, this sort fell into disrepute, and he at once re-grafted it with a more reputable variety. But this reputable variety was laid aside by one of the Pomological Conventions, and he now has the third sort growing upon its root, without having as yet seen the fruit from either.

The MELON, or Norton's Melon, was not largely commented on, but was regarded by those who spoke of its merits, as an exceedingly pleasant and refreshing fruit—the tree of slow growth, but a good bearer—the fruit keeping through winter, but often lessened in its keeping quality by injury in gathering, from its texture. It was recommended as a good apple for family use.

A similar value was accorded to the EARLY JOE, an early

autumn fruit, possessing much delicacy and richness, and an exceedlingly agreeable flavor, and great bearer. But it must be eaten at the moment it is at its best state, and it nearly always becomes poor when sent to long distances.

The Second Evening was occupied with the discussion of the Pear Blight and the Curculio. In relation to the former, it was generally admitted that the knife was the best remedy—*thorough, prompt*, and, if needed, *repeated* excision generally proving effectual, except in very virulent cases. Some trees, it was stated, had been repeatedly attacked with blight in different years, and by cutting had been saved, and were now in a healthy bearing condition. In other cases, the disease had been so severe as to destroy the tree at once. Sometimes, as Dr. Warder of Cincinnati observed, the blight first made its appearance at the foot of the trunk, when of course no remedy could be applied. When severe, the disease was generally regarded as contagious.

As to its immediate cause, nothing satisfactory was claimed by any one. Like the potato rot, the more extensive and minute the observations, the less appeared to be ascertained. P. Barry strongly advocated the insect theory; but as no insect was ever seen,* and as all other injuries or poisons to vegetables by insects are quite *local* in character, the evidence was regarded as too slender to support this theory, and the convention did not favor it.

For the *Curculio*, the best and most certain remedy was conceded to be *jarring down on sheets*, while the confinement of pigs and poultry was a valuable auxiliary, and where the insects were not abundant, sufficient in itself; the trees being protected from the pigs by stakes or twigs of sweet-briars. It was stated that a chief reason why jarring had sometimes failed was the softened pounders used for striking the tree. A small limb should be sawed off, leaving a short stump, against which a sharp sudden blow may be given by a hammer or axe, without any injury to the tree. A quick sudden blow is necessary to loosen at once the hold of all the insects. The use of lime had been found both troublesome and ineffectual, the least chafing between fruit and leaves being sufficient to wear off small portions of the lime, through which the insect quickly punctured the skin.

### The Black Ant.

Complaints have been frequently made, of the black ants which infest gardens; and various plans to expel them, have been proposed. I doubt however, if *expulsion* is the best remedy. If we drive them from their nest, by rendering it uncomfortable, they generally, if not always, make another very near, so that nothing is permanently gained by the process.

Instead of expulsion, I would therefore propose *extermination;* and this may be easily effected by placing near them, *a basket of ripe apples.* If one finds it, the whole nest is quickly apprised of the discovery; and while feasting they may be quietly carried to the water, or crushed—by letting out only a few at a time, on a barn floor. This morning I carried off more than a hundred at once. D. T.

* These remarks not applying to the injury by *Scolytus pyri.*

### Good Vegetables and Small Fruits.

Editors Cultivator—I have, after carefull observations, for a term of years, come to the following conclusions:—

1. That the *best table* pea, is Hair's new mammoth Dwarf Marrow, combining dwarf size (two feet) with great productiveness and *unequalled richness.* Darey Marrowfat is the largest pea I have ever seen, but Hair's is only next in size, and superior in other respects to that and the Victoria marrowfat, and some dozen other of the choicest peas from the London market, which I have proved. I prefer the Early Emperor pea to any other early Pea. The Champion of England is fine, but only a week or two earlier than Hair's, and decidedly inferior in all other respects. I obtained Hair's Dwarf Pea from Thorburn, N. Y., two years ago, and the Darey Marrowfat from a friend who left London in February last.

2. I cannot tell whether the Early Shaws I received from Columbia County, or the premium Potato of Mr. Smith of Buffalo, at the State Fair at Syracuse, is the best early potato. They have both proved earlier this season in my garden, than the ash-leaved kidney, and are both of very superior quality and size.

One of Mr. Killam's seedlings, from Mexico, N. Y., I rather think surpasses in quality the Carter, or any other potato I have tried, and is almost as early as the two first mentioned, and is decidedly the finest potatoe I have ever seen.

3. We still prefer the Celery, or as thought to be, the Curled Silesia Lettuce, to any other of the more celebrated varieties. It has a finer flavor, and retains it better with us than any other variety.

4. We have monstrous gooseberries in my garden this season—larger than Crompton's Sheba Queen, but none that at all compare with it in flavor.

5. All my strawberries have done well this season; but Burr's new Pine has surpassed all in flavor and productiveness. We will see how it will compete next season, with "Walker's Seedling" which I have just received, and McAvoy's Superior, and some other new kinds.

6. Rivers' New Giant Raspberry has been the most productive berry of this kind on my ground; but being only the first season of trial, it ought not to be considered conclusive. The Ohio Everbearing has fruited for its second crop, which the large fruited monthly has not done as yet. The large American White bears largely, and is a strong grower. R. G. P. *Palmyra, N. Y., Sept.*, 1851.

Advantages of Draining.—Edward Brooks of Boston, stated at one of the Agricultural meetings, that after thoroughly underdraining a piece of wet ground, the soil not only became firm so as to bear a team, but that the crops may be started a fortnight earlier.

Painting Roofs.—The roofs of all buildings should be painted of as light a color as practicable. Dark colors or black, absorb the sun's rays, warp the shingles, and render the garret and upper rooms uncomfortably hot.

Hydraulic Ram.—J. J. Conet states in Moore's New Yorker, that he erected a water-ram which sends water 62 rods, at the rate of 15 gallons per hour, to his house and barns, elevating it 100 feet.

### A Question about Young Fruit Trees.

Two years ago I had a small orchard set out by an unskillful workman. Some of the trees were planted from four to six inches deeper than they stood in the nursery. Consequently they have grown very little. Would it be a good plan to take up these trees and reset them in the fall or next spring? Or is there some way of forcing new roots to start near the surface? An answer through the Cultivator would greatly oblige, AN INEXPERIENCED FRUIT-GROWER. *Steuben, Aug.* 14, 1851.

[If, upon examination, these trees have not sent out a new set of roots nearer the surface, which is by no means probable, then the best course undoubtedly is to re-set them no deeper than they stood in the nursery. If done the present autumn, it would be prudent to bank up around them several inches till spring, not only for protection against mice, and stiffening against the wind, but for shielding the tender and newly uncovered bark from the severity of the winter.

Many trees are injured or destroyed by setting too deeply. A better practice is to dig very shallow holes or no holes at all, and to set the trees nearly or wholly on the surface, making a broad mound over the roots. This is the best treatment in all cases where the soil is rather wet or heavy. ED.]

### Disease in Fruit Trees.

Can any of you fruit growers give information respecting a disease which has caused the death of several of the apple trees in my orchard during the past two years, and is new in this section of country? It attacks vigorous, growing young trees, from eight to ten inches in diameter, about the middle of 7th month. The first appearance of the disease is, the bark for about a foot from the ground turns black, and upon examination I found that portion of the trunk and the roots entirely dead, devoid of all sap or any appearance of life—the rest of the tree retaining its vitality and maturing autumn fruit as usual. By the ensuing spring, the trees die. At first, I attributed it to the 'borer,' but upon the closest scrutiny I could find no symptoms of their presence. The ground is in a high state of cultivation, and is occasionally left to grass. J. M. *Quakertown, Pennsylvania.*

### Correction.

MR. EDITOR—I regret to be under the necessity of correcting the statement I made to you some few weeks since in my garden, that tanner's oil was a remedy for the black ant among my strawberry vines. It certainly seemed to be at the time, and for a week or two thereafter the remedy appeared to be perfect. But alas! the ants have returned to the same plants, and besides I find the oil results injuriously to the plants.

I am now trying a weak solution of the sulphate of potash, or a slight sprinkling of it pulverised, with some encouragement as far as I have observed its effects, but my continued acquaintance with the habits of the ant, (for it is the greatest pest I have,) will caution me against concluding from any present hopeful appearances that he can be effectually driven off with it.

The sulphate of potash decidedly invigorates the plants. R. G. PARDEE. *Palmyra, July 7th,* 1851.

### Cultivation of the Blackberry.

EDS. CULTIVATOR—I enclose you a slip from to-day's N. American (of this city) relative to the culture of the blackberry near Boston. I am very desirous of obtaining some information about this matter, and not being a subscriber to any Boston Ag. Journal, I shall feel obliged to you to make inquiry about the time of transplanting it, method of culture, &c., of which I may avail myself through the columns of your Journal. Such information I think would be acceptable to your subscribers in this neighborhood. Yours, respectfully, ALGERNON ROBERTS. *Philadelphia*

[The slip was not received. The cultivation of improved varieties of the blackberry is exciting increased attention in the vicinity of Boston. Hovey's Magazine states that several of the berries lately exhibited by J. LOVETT, of Beverly, measured *one and a half inches in length.* The same journal states that "a dozen vines, well established will yield sufficient fruit for an ordinary family."

S. W. COLE, of Boston, says, "We have seen this fruit sold at $1 a quart, that was not a whit better (though fine) than we have picked (a quart without moving from our steps) on new lands in Maine. We have measured bushes of one year's growth 10 feet high. We did not dream, in our boyhood, when tearing our legs among thousands of brambles, of ever seeing this fruit cultivated, and sold at enormous prices.

The blackberry ripens long in succession, coming in immediately after the raspberry. Owing to its great excellence, bees, wasps, flies, &c., claim a large share. Some *blackberries* are *white*, but they are as great an anomaly as a *white blackbird*, or *white crow*, which is seldom seen.

SOIL, PROPAGATION AND CULTURE.—The blackberry grows freely in a warm, tolerably dry or rather moist, deep, rich soil. It abounds among stones, old logs, fences, and natural hedges. Keep the land rich and mellow. Besides other manures, use ashes, leaves, and vegetable mould. It is propagated by seeds, and by offsets at the roots. Train up new wood, and cut away the old, to keep the bushes vigorous and productive.

HIGH BUSH, (*Rubus villosus.*) Fruit large; long-ovate; shining black; very tender, juicy, of a sweet, rich, spirited, aromatic flavor, resembling the orange. Growth straight and upright, then the tops become recumbent. White blossoms. Downing's account of this fruit does not come up to the valuable wild variety in Maine.

LOW BUSH, (*Rubus canadensis.*) Small; roundish or irregular; black or reddish-black; rather tart, but brisk, pleasant flavor.

### The Manettii Rose for Stocks.

*Extract of a letter from an eminent florist in the South.*

I had long wanted to get the Manettii, and wrote to Philadelphia for it last spring, but failed. I confess I like the budded roses very much: *the flowers are almost always large and fine;* and though not so long-lived as when they grow on their own roots, yet it is not much trouble to bud them anew as often as we want a fresh supply. Besides this, there are some few varieties that I cannot get to flourish on their own roots. The Chromatella is one of these; but it succeeds well by budding, and produces a great quantity of fine flowers.

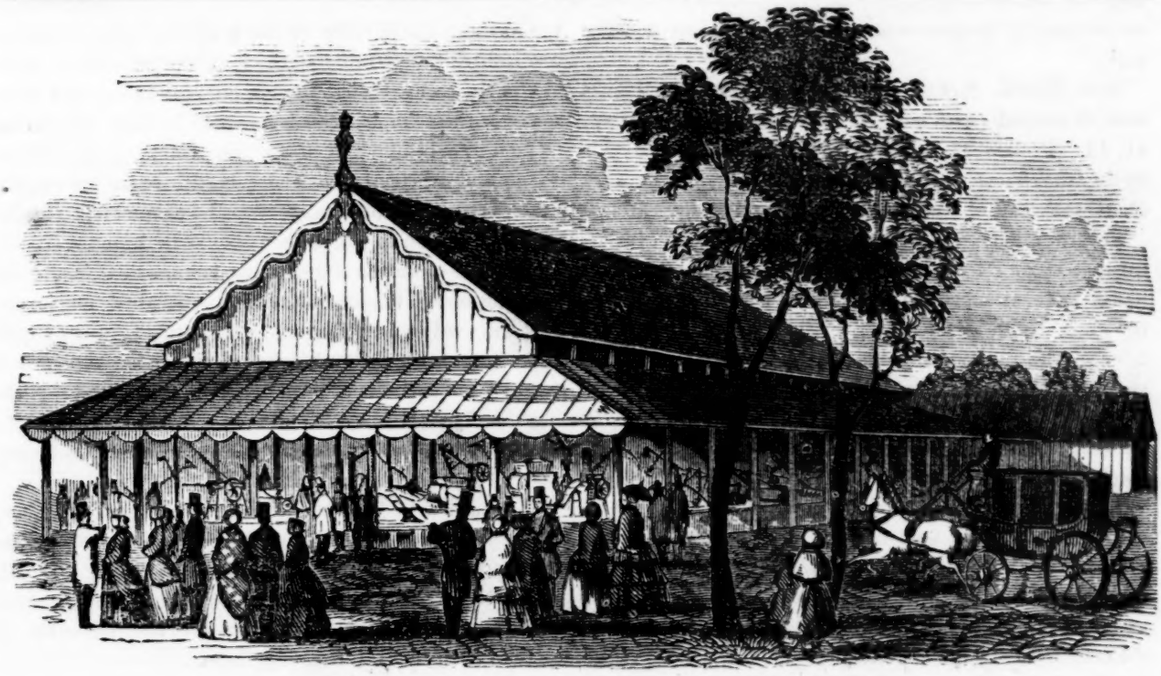
[With me, the Chromatella has grown well on its own roots—one stem, the growth of this season, is about 4 feet high—though possibly it might do better on another stock. D. T.]

**John Delafield, President of the New-York State Agricultural Society.**

The above is an excellent portrait of the present presiding officer of the New-York State Agricultural Society. Mr. DELAFIELD has been well known to our readers, and to the farming public of the country generally, for several years. He is known not only as an able and instructive writer, but as a most systematic, thorough and successful farmer—his farm having received the first premium of the N. Y. State Society in 1849. Hundreds of persons have visited his farm, and made themselves acquainted with its management, and many useful ideas and suggestions have been thus obtained, which, by being widely disseminated, have produced extensive results. In fact, Mr. DELAFIELD'S labors in the improvement of agriculture, are highly appreciated by the people of New-York. In the county of Seneca, in which he resides, he is acknowledged to have rendered important services in the introduction of improved implements of husbandry, and labor-saving machines—among which may be mentioned the drain-tile machine, which is producing immense benefits—and also in awakening a spirit of improvement by the diffusion of information, and by the numerous useful, practical examples he has afforded. Not least among his praiseworthy labors, is that of making an Agricultural Survey of Seneca County, a work which was undertaken at the request of the Executive Board of the State Agricultural Society, and was completed last year. The Report is embraced in the Transactions of the Society for 1850. It is a document of much interest and value, presenting in an admirable form the subjects to which it is devoted, and may, in this respect, be taken as a pattern for imitation.

In the discharge of his duties as President of the Society over which he presides, Mr. DELAFIELD has exhibited the same good judgment and systematic skill which have ever characterised his business operations, and both in his management as an officer, and in his deportment as a citizen, has won the sincere esteem of those with whom he has been connected.

Preparations for winter should be made with as much dispatch as possible. Animals should be provided with shelter,—tender plants shonld be properly protected,—vegetables and fruits should be secured against the attack of frost.



**Mechanics' Hall, State Fair Grounds, Rochester.**

### Implements at the New-York State Fair.

The show of agricultural implements at the late Fair at Rochester, in respect to the variety of articles, and the extent of competition for the different kinds, was superior to any display we have ever witnessed. We have more than once remarked that improvements in agriculture in this country, have taken their rise more from the improvements which have been made in implements, than from any other cause. The advance which has taken place from the cause here alluded to, is valuable in two important aspects: first, from the more thorough husbandry which has been induced, and the better and more certain crops which have been obtained; and second, from the economy of labor, which the introduction of superior implements has brought about. On both these points the advantage gained has been very great, and the labor-saving principle—or at least the saving of manual labor—has been of incalculable benefit to the farmers of many sections of the country.

Prominent among implements of this character, which are of modern invention or introduction, are REAPING MACHINES. It is true, however, that machines designed for reaping grain by horse-power were tried in England fifty years ago, and also at several subsequent periods; but their practical use is of comparatively late origin, the credit, which we are proud to say, belongs to American mechanics. This assertion will not, it is presumed, be denied; but at the same time, it is no more than fair to admit that the previous attempts at the construction of such an implement, although falling short of the object, were doubtless highly useful in the development of principles, and in showing, to some extent, what was, and what was not practicable.

It is now several years since various reaping machines have been used to a large extent in this country. They have been used to more or less advantage in most districts where wheat is largely cultivated, though the most striking and manifest advantage from their use, has been found in the newly-settled western states, where, from the scarcity of manual labor, it would have been absolutely impossible to have secured the harvests in the ordinary way of reaping or cradling.

The expediency of using these machines, depends, of course, upon the circumstances of the farmer—somewhat on the character of the surface of the land, that which is comparatively smooth and level being desirable—the number of acres of grain grown, and the readiness with which hand-labor may be obtained, and the price it will command. In the older and most populous sections of the country, where various crops are cultivated on the same farm, it is often the case that the farmer has no more wheat or other small grain, than can readily be cut in the proper stage by the hands ordinarily employed on the farm. If he has not more wheat, barley, or oats, than a machine can cut in a day or two, he will naturally conclude that it is inexpedient for him to purchase a machine at the cost of more than a hundred dollars for this purpose. It is still, however, a question whether this objection to the use of machines might not be advantageously overcome by the implement being owned by a man who might make cutting grain, by the acre, a regular business during the proper season.

It is known to our readers that two noted American reaping machines, have been introduced into England during the present season, and that to one of these, Mr. MCCORMICK'S, the great medal has been awarded at the Industrial Exhibition of all Nations. This machine, as well as that of Mr. HUSSEY'S, has been subjected to various trials in England, with results highly satisfactory as to their operation, results which seem to have inspired a conviction that they can be extensively adopted in that country, notwithstanding the comparative cheapness of labor, with profit to the farmer—or at least with profit

to the class of farmers who produce grain on a large scale.

Both Messrs. McCormick's and Hussey's machines were described (with cuts) in our current volume, pp. 41, 42. Both were exhibited at Rochester; Mr. McC.'s by by Hon. Thos. J. Patterson, Rochester, and Mr. H.'s R. Hussey & Co., Auburn.

Several other reapers were exhibited which deserve mention. B. Densmore, Brockport, offered one which had a rake attached to it for the purpose of removing the grain from the platform, without the aid of hand-labor. The apparatus was so geared that the rake would sweep off the grain at regular intervals. As none of the machines were tried, we cannot tell how well they might perform what was claimed for them. Another self-raking machine was offered by Anson Palmer, Brockport.

Mr. T. D. Burrall, of Geneva, offered a machine of his own invention, for which several advantages are claimed. It is very compact in its form, occupying but little space, may be readily adjusted to cut the grain at various heights, and discharges the grain in its own track —thus obviating the necessity of moving it before the machine takes another swath. It is also stated to operate well as a mowing machine for grass. The cost is from $110 to $125.

Ketchum's mowing machine, manufactured by Howard & Co., Buffalo, was exhibited. It is a very simple implement, strong, and apparently durable. It is well spoken of by those by whom it has been used.

Drill Machines, or Seed-Planters.—In these implements there was a large display, embracing nearly all the machines of established character, and several of late introduction. We noticed Seymour's, manufactured by P. Seymour, East-Bloomfield, Ontario county, (for cut and description, see Cultivator for 1850, p. 273,) which is much used in the western part of the state. The same person also offered his broadcast sowing machine, which has been described in this journal. Mr. Seymour has also combined the broadcast apparatus with the drill, in one frame—the whole being so contrived that the grain is planted in drills, and clover and grass seed sown broadcast at the same operation.

The drill made by Bickford and Huffman, Macedon, N. Y., (described, with cut, in our current volume, p. 209,) was also exhibited. It appears to be simple and effective. W. Rowland, Brighton, N. Y., offered a machine constructed for the purpose of depositing portable manures—as lime, plaster, guano, ashes, ground bones, &c., in the drill with the grain. A drill offered by W. Nichols, Grimsby, C. W., appeared well. A drill made Nathan Ide, Shelby, Orleans county, also made by Levi Wells, Rochester, is said to give good satisfaction. The same may be said of Atkins' drill, made by J. Ganson, Brockport. Gatling's drill, invented by R. J. Gatling, Indianapolis, Ind., in 1848, is somewhat peculiar in its construction, and is thought to possess some advantages. It combines to some extent the operations of the cultivator and drill. The process for distributing the seed is ingenious and effective. A series of screws, in the form of augurs, are so arranged that by their constant turning they deposit the seed in the drills with the utmost evenness and regularity. This apparatus obviates the liability of the machine being clogged, and insures the planting of the requisite amount of seed.

Cultivators.—Considerable improvements have been made in these implements, especially in their adaptation to field cultivation, and in the preparation of the soil for wheat and other crops. There is still room for considerable improvement in respect to the shape of the teeth, and the position in which they should be set in the frame, in order to clean the soil of foul plants, and to insure the working of the implement with the greatest efficiency. For the eradication of couch, or "witch" grass (*Triticum repens*) in particular, but few of the implements used by our farmers are capable of properly accomplishing the object. They should be constructed more to draw out—bring the roots to the susface, so that they may be gathered up and carried off the ground.

The cultivators offered on this occasion by J. Ganson, Brockport, had wrought-iron frames, the shanks of the teeth of wrought-iron, the feet or cutting part, of steel.

The teeth could be set in the frame, by means of thumb screws attached to each, to work at any required depth. A one-horse cultivator offered by the same person constructed in a similar manner to the preceding, appeared to be an excellent article.

We noticed several other good field cultivators, as Ide's, made by Levi Wells, Rochester. Spence & Atkins', made at Chili, Monroe county, N. Y. D. W. Martin's, North Greece, Monroe county, N. Y., (iron frame and steel teeth,) D. Hinkston's, Clarkson, Monroe county, (cast-iron,) and T. D. Burrall's, Geneva.

Clod-Crushers.—These are designed for breaking lumps or clods of hard earth, which it is difficult, and in some cases impossible to reduce by the harrow and common roller—especially on stiff clay soils, which are broken up during drouth. They might be used with excellent advantage. One was exhibited by John Walker, Chili, Monroe county. They are also made by T. D. Burrall, Geneva.

Plows.—There was a large display of these, embracing collections of various patterns and sizes from the establishments of Ruggles, Nourse & Mason, Worcester, Mass., offered by Rapalje & Co., Rochester, Martin & Co., Sutton, Mass., Bosworth, Rich & Co., and Starbuck & Co., Troy, Eddy & Co., Union Village, Washington county, N. Y., Allen & Belding, Rochester, and T. D. Burrall, Geneva.

Threshing Machines, Horse-powers, &c.—Of these there was the usual variety, but we noticed little as worthy of note that has not been previously presented to the public. Threshing machines were operated by various forms of lever or sweep power, as well as by the rotary or endless chain principle. Of the former, we noticed Pitts', with separator attached, made by John A. Pitts, Rochester, and of the latter the chief competition was between Emery & Co. and Wheeler & Co., Albany. Taplin's was offered by Eddy & Co., Union Village. All these have been previously described in our columns. They probably combine the advantages of the various modes of applying horse power, in as high a degree as has ever been attained. Wheeler's winnower and separator, described in our last number, was in operation, attached to their horse-power and thresher, and appeared to give entire satisfaction.

## List of Premiums
### Awarded at the State Fair at Rochester.

CATTLE.—SHORT-HORNS.

BULLS—Over three years old—1. Sherwood & Stevens, Auburn, Earl Seaham, $25.—2. L. G. Morris, Fordham, Lamartine, $15.—3. Lewis F. Allen, Black Rock, Exeter, $5.——Two years old—1. L. G. Morris, $20.—2. W. T. & N. Chappell, $10.—3. J. G. Peck, West Bloomfield, $5.——Yearlings—1. J. M. Sherwood, $15.—2. E. W. Sheldon, Sennett, $10.—3. L. G. Morris, $5.——Bull Calves—1. J. M. Sherwood, $10.—2. Aaron Barber, Avon, $3 and Trans.

Cows—Over three years old—1 and 2. L. G. Morris, $25 and 15.—3. S. P. Chapman, Clockville, $5.——Two years old—1. L. G. Morris, $20.—2. S. P. Chapman, $10.—3. L. F. Allen, $5.——Yearlings—1. N. J. Becar, Brooklyn, $15.—2. J. M. Sherwood, $10.—3. S. P. Chapman, $5.——Heifer Calves—1. S. P. Chapman, $10.—2. E. W. Sheldon, $3 and Trans.

Best three Cows and three Heifers owned by one exhibitor—S. P. Chapman, $25.

DEVONS.

BULLS—Over three years old—1. W. P. & C. S. Wainwright, Rhinebeck, $25.—2. E. N. Thomas, Rose, certificate, his bull having previously received the same prize.—3. M. C. Remington, Sennett, $5.——Two years old—1. H. Colby, Scipio, $20.—2. Saml. Baker, Edmonston, $10.—3. Albert Allen, Jordan, $5.——Yearlings—1. L. H. Colby, $15.—2 and 3 Ambrose Stevens, New-York, $10 and $5.——Bull Calves—1. Miles Vernon, Stafford, $10.—2. Ambrose Stevens, $3 and Trans.

Cows.—Over three years—1. W. P. & C. S. Wainwright, $25.—2. L. G. Morris, $15.—3. A. Stevens, $5——Two years old—1. R. H. Van Rensselaer, Morris, $20.—2. L. G. Morris, $10.—3. Miles Vernon, $5.——Yearlings—1. A. Stevens, $15.—2. W. P. & C. S. Wainwright, $10.—3. M. C. Remington, $5.——Heifer Calves—1. R. H. Van Rensselaer, $10.—2. H. N. Washbon, Morris, $3 and Trans.

Best three Cows and three Heifers—E. P. Beck, Sheldon, $25.

HEREFORDS.

BULLS.—Over three years old—1. Allen Ayrault, Geneseo, $25—2. Rowland Sotham, Black Rock, $15—3. W. H. Sotham, Piffardinia, $5.——Two years old—1. Rawson Harmon, Wheatland, $20.——Yearlings—1. L. F. Allen, $15—2. Rowland Sotham, $10.——Bull Calves—1. W. H. Sotham, $10.

Cows.—1 and 2. W. H. Sotham, $25 and $15—3. Rowland Sotham, $5.——Two years old—1. Allen Ayrault, $20—2 and 3. W. H. Sotham, $10 and $5.——Yearlings—1. A. Ayrault, $15—2 and 3. W. H. Sotham, $10 and $5.——Heifer Calves—1. A. Ayrault, $10—2. W. H. Sotham, $3 and Trans.

Best three Cows and three Heifers—W. H. Sotham, $25.

AYRSHIRES.

BULLS—Over three years old—1. E. P. Prentice, Albany, $25—2. W. Somerville, Ellicotville, $15.——Yearlings—1. E. P. Prentice, $15.——Bull Calves—1. W. A. Mills, Mt. Morris, $10—2. E. P. Prentice, $3 and Trans.

Cows.—Over three years old—1. W. A. Mills, $25—2 and 3. E. P. Prentice, $15 and $5.——Two years old—1. E. P. Prentice, $20.——Yearlings—1 and 2. E. P. Prentice, $15 and $10.——Heifer Calves—1. E. P. Prentice, $10.

NATIVE AND CROSS-BREEDS.

Cows.—1 and 2. John Brown, Auburn, $20 and $12—3. A. Ayrault, $1.——Two years old—1. Lyman Turner, Geneseo, $15—2. John Muir, Sr., Hamilton, $10—3. Jasper Barber, Avon, $3.——Yearlings—1. J. Freeman, Geneseo, $10—2. D. H. Albertson, Lima, $8—3. A. Ayrault, $3.——Heifer Calves—1. Donald McHardy, Rush, $3—2. J. Gould, Rochester, Trans.

To Miles Vernon, $15 and $10, for two grade cows.

OXEN AND STEERS.

OXEN.—Best yoke—1. W. Wadsworth, Geneseo, $20—2. E. Sheldon, $15—3. D. S. Baker, $5.——Three year old Steers—1. Jas. S. Wadsworth, Geneseo, $10—2. W. T. and N. Chappell, $5—3. D. S. Baker, $3.

TWO YEAR OLD STEERS—1. Geo. Shaffer, Wheatland, $10—2. Daniel S. Baker, $8—3. J. S. Wadsworth, $3 and Trans.

To boys under 16, training yoke of steers—J. G. Ramsdell, Perinton, $3. and Trans.

YEARLING STEERS—1. John Muir, Sen. $8.—2. C. Sheldon, Conquest, $5—3. J. P. Hammond, Alexander, $3 and Trans.——To boys under 16, training steers—1. Vincent Lincoln, Alexander, Silver Medal—2. Emery Shepperson, East Hamilton, $3 and Trans.

MILCH COWS.

1. Jacob Gould, Rochester, D. McHardy, Rush, James Upton, Greece, and D. S. Earle, Salina, Diplomas.

FAT CATTLE.

STALL FED—Single Ox—1. Hiram Sheldon, Sennett, $15—2. Geo. J. Pumpelly, Owego, $10.——Fat Cows—1. Robt. Fowler, Batavia, $15—2. Rich. Winn, Batavia, $10.——Pair Fat Steers—1. D. S. Baker, $15—2. Jas. Upton, $12—3. D. S. Baker, $8.——Single Steer—1. J. S. Wadsworth, $10—2. D. S. Baker, $6.

SPECIAL PREMIUMS—L. W. Taylor, Lima, for thorough bred Durham Heifer, $25.——Geo. Shaffer, for three spayed heifers, $30.

GRASS FED—Single Ox—2. Freeman Nye, Darien, $6.——Pair Fat Steers—1. E. Sheldon, $12—2. Hiram Sheldon, $5.——Single Steer—Ira Rix, Alexander, $8.——Heifers—1. J. W. Hamlin, Aurora, $8—2. E. Sheldon, $3.

FAT SHEEP.

LONG WOOLED.—1 Wm. Swales, Sodus, $5—2. John McDonald, Herkimer, $3—3. Elias Barlow, Dutchess, Morrell's Shepherd.

MIDDLE WOOLED—Over two years old—1. Thos. Hosebury, $5—2. Marvin Hopkins, $3—3. Rich. Peck, Morrell's Shepherd.——Under two years—1. Marvin Hopkins, $5—2 and 3. Wm. S. Gypson, $3 and Morrell's Shepherd.

FOREIGN CATTLE.

SHORT HORNED BULLS—1. Hon. Adam Ferguson, Wood Hill, C. W., $15 and Diploma—2. Ralph Wade, Port Hope, C. W., $10.——Cows—1. Hon. Adam Ferguson, $15 and Diploma.

DEVSNS—Bulls—1. John Masson, Cobourg, C. W, $15 and Diploma—2. R. C. Gapper, Thornhill, C. W., $10.

To Roswell L. Colt, Patterson, N. J., for Hungarian cow and bull and Alderney Cow and Bull, $15 and Diploma, each.

HORSES.

*For all work*—Stallions.—1. F. Pester, Perinton, $25.—2. Caleb Gasper, Marcellus, $15.—3. M. G. Hungerford, Watertown, $5.—4. Robert Russell, Phelps, Youatt on the Horse.

Mares, with Colts—2. R. F. Pennel, Somerset, $15.—3. J. K. Ballantine, Chili, $5.—4. Stephen Cleveland, Penn-Yan, Youatt.

Special Premiums to Morgan Horses—1. C. W. Ingersoll, Lodi, $15.—2. S. A. Gilbert, East Hamilton, $10.—3. J. D. Remington, Sennett, $5.

*For Draught*—1. M. H. Van Inwagen, Fairville, $25.—2. Hiram Hosmer, Bennington, $15.—3. Jacob Brewer, Victor, $5.—4. Wm. Pierce, Henrietta, Youatt.

Wm. P. Nottingham, Palmyra, was awarded a certificate for "Young Sampson," he having heretofore received the first prize, as the best horse in this class.

*Thorough-bred*—Certificate to J. B. Burnett, Syracuse, for "Consternation," as the best, he having previously received the first prize—1. Samuel Baker, Edmonston, for "Pryor," $25.

*Three years old*—Stallions—1. W. P. Nottingham, $20—2. Andrew Hallenbeck, Caledonia, $10—3. Hiram Sayles, Scottsville, Youatt—4. Bernard Gilder, Steuben, Trans.——Mares—2. Wm. Reeves, Henrietta, $10—3. H. H. Kellogg, Clinton, Youatt—4. Stephen Mercer, Onondaga, Trans.

*Two years old*—Stallions—1. O. G. Pennell, Ridgeway, $15—2. Francis Winslow, Henrietta, Youatt—3. Lorenzo Norton, Darien, Trans.——Mares—1. Isaac M. Gillet, Clyde, $15.

*Yearlings*—Stallions—1. A. M. Starkweather, Eagle Harbor, $10—2. John Stryker, Chili, Youatt—3. J. C. Vail, Royalton, Trans.——Mares—1. J. M. Gillett, $10—2. C. W. Ingersoll, Youatt.

*Matched Carriage Horses*—1. G. C. Baker, Rochester, $15 and Diploma—2. J. Christopher, Buffalo, $10—3. John Butterfield, Utica, Youatt.

*Matched Horses for Farm*—1. Alfred Hall, Lyons, $15 and Diploma—2. Geo. Waffle, Gates, $10.

*Geldings*—E. R. Jerrold, Niagara Falls, $10 and Diploma—2. G. Warren, Half Moon, $8—3. H. F. Hotchkiss, $6—4. Daniel Waite, Darien, Youatt.

*Mares*—1. Geo. Gates, Mohawk, $10 and Diploma—2. W. W. Wadsworth, $8—3. C. W. Barker, Rochester, $6.

*Foreign Horses*—Best Stallion for all work, E. H. Hawks, Toronto, C. W., "Perfection," $10 and Diploma.——Best do. for draught, Joseph Graham, Port Hope, "Canadian Clyde," $10 and Diploma—Mrs. Jane Ward, Markham, C. W., was awarded Certificate for "Old Clyde," as the best horse in this class, he having had the first prize at a previous show.

SHEEP.

*Long Wooled*—Best buck over two years old—1. J. Mc Donald, Warren, $10.—2. Richard Peck, Lima, $8.—3. Samuel Hecock, Black Rock, $5.

Best buck two years or under—1. Williams Rathbone, Springfield, $10.—2. James A. Jackson, Gilbertsville, $8.—3. Richard Gypson, Westmoreland, $5.

Best pen 5 ewes, over two years—1. Wms. Rathbone, Springfield, $10.—2. Thos. Hosebury, Cambria, $8.—3 Wm. Swails, Sodus, $5.

Best pen 5 ewes two years or under—1. Wms. Rathbone, Springfield, 10.—2. J. C. Rathbone, Otsego co., $8.—3. Samuel Hecock, Black Rock, $5.

Best pen 5 buck lambs—1. Wms. Rathbone, Springfield, $8.—2. Williams Rathbone, Morrell's Am. Shep. and $3.

Elias Barlow, Lagrange, for three lots of very good ewes, three in each lot, special premium of $8.

*Middle Wooled*—Best buck over 2 years—1. L. G. Morris and Noel J. Becar, $10.—2. Z. B. Wakeman, Herkimer, $8.—3. Samuel Baker, Edmonston, $5.

Best buck 2 years or under—1. J. M. Sherwood, Auburn, $10.—2. Z. B. Wakeman, Herkimer, $8.—3. C. Parsons, Riga, $5

Best pen 5 ewes over two years, L. G Morris and Noel J. Becar, $10.—2. J. M. Sherwood, Auburn.—3. Z. B. Wakeman, $8.

Best pen 5 ewes 2 years or under—1. Ambrose Stevens, New-York, $10.—2 Z. B. Wakeman, $8.—3. Charles B. Meek, Canandaigua, $5.

Best pen 5 buck lambs—1. Ambrose Stevens, $8—2. L. G. Morris and Noel J. Becar, Morrell's Amer. Shep and $3.

Best pen 5 ewe lambs—L. G. Morris and Noel J. Becar, $8—2. Z. B. Wakeman, Morrell's Amer. Shep. and $3.

*Merinos*—Second best buck over 2 years—David Hillman, Avon, $8—3d best, O. Smith, $5.

Best buck 2 years or under—1. W. H. Cox, Stamford, $10—2. H. M. Dart, Harpersfield. $8.—3. Gen R. Harmon, Wheatland, $5.

To Reed Burrett, Burdett, for his imported French Merino Buck, a special premium of $10 is awarded

Best pen 5 ewes over 2 years—David Hall, Gaines, $10.—3d. David Hillman, Avon, $5.

Best pen 5 ewes 2 years or under, H. M. Dart, Harpersfield $10.

Best pen 5 buck lambs—1. W. A Cook, Lima. $8.—2. Gen. R. Harmon, Wheatland, Morrell's Amer. Shep. and $3.

Best pen 5 ewe lambs—1. W. A. Cook, Lima, $8.—2. J. W. Hyde, Darien, Morrell's Amer. Shep. and $3.

Best samples of wool, not less than 10 fleeces, W. D. Dickinson, Ontario county, Silver Medal.

SAXONS—Best buck over two years—1. Samuel H. Church, Vernon, $10.—2. A. H. McLean, Caledonia, $8.—J. Bettridge, Riga, $5.

Best buck two years or under—1 Samuel H. Church, Vernon, $10—2. Chas. Colt, Geneseo, $8—3. David J. Lee, Darien, $5.

Best five ewes, over two years old—1. S. H. Church, Vernon, $10—2. Chas. Colt, Geneseo, $8—3. A. H. McLean, Caledonia, $5

Best pen five ewes two years old or under—1. S. H. Church, Vernon, $10.

Best pen five buck lambs—1. S. H. Church, Vernon, $8

Best pen five ewe lambs—1. S. H. Church, $8.

Best sample of wool, not less than 10 fleeces—1. David J. Lee, Darien, Silver Medal.

CROSS BRED SHEEP—Best buck over two years—D. S. Curtis, Canaan, $10.

Best buck two years or under—1. Taylor Goodell, Alexander, $10—2. W. D. Dickinson, Victor, $8.

Best pen five ewes over two years—W. D. Dickinson, $10.

Best pen five ewes two years or under—1. David J. Lee, Darien, $10—2. W. D. Dickinson, $8.

Best pen five buck lambs—1. W. D. Dickinson, $8—2. Taylor Goodell, $3 and Morrell's Shepherd.

Best pen five ewe lambs—W. D. Dickinson, $8.

## FOREIGN SHEEP.

*Long Wooled*—Best buck—R. C. Gapper, Thornhill, C W., $10.

Best pen five ewes—William Miller, Pickering, C. W , $10.

*Middle Wooled*—Best buck—Joseph Pierce, Whitby, C. W., $10

Best pen five ewes—Ralph Wade, Cobourg, C. W., $10.

*Special*—Joseph Pierce, a vol. of Transactions and $5 for a pen of middle wooled ewes. John Cade, Whitby, C. W., a vol. of Trans. and $5 for a pen of middle wooled ewes. William Miller, Pickering, C. W., a vol. Trans. for 1 buck. Ralph Wade, Cobourg, C. W., a vol. Trans for 1 buck.

MERINOS—Best buck—Jonathan S. Wilmarth, Addison, Vermont, $10.

*Saxons*—Best buck—S. C. Scovil, Salisbury, Ct , $10.

## SWINE

Best boar over two years old—1. Geo. Shaffer, Wheatland, $10—2 Wm H. Davies, Black Lake. $5.

Best boar one year old, L. Vanderwenter, Benton, $10—2. Truman Bowen, Chili, $5.

Best boar six months, and under one year—1. L. G. Morris, Fordham, $8—2. L. D Hecock, Alexander, $3.

Best breeding sow over two years—1. Elisha Beebe, Henrietta, Berkshire and Leicester, $10—2. Truman Bowen, Chili, Byfield, $5

Best breeding sow one year old—1. Geo. Shaffer, Wheatland, Leicester, $10—2. Orrin Lathrop, Darien, Leicester, $5.

Best sow six months, and under one year—1. N. Haywood & Son, Brighton, Leicester and Byfield, $8—2. Mattathias Garratt, Gates, Leicester and Byfield, $3.

Best lot of pigs not less than five, under 10 months—1. Samuel S. Wood, of Rochester, $10—2. Elisha Beebe, Henrietta, $5.

## POULTRY.

Best lot of Dorkings, not less than three, one cock and two hens—Lewis F. Allen, Black Rock, $3.

Best lot of Polands not less than three—F. W. Collins, East Bloomfield, $3.

Best lot of Malay or Chittegong fowls, not less than three—A. A. Hudson, Syracuse, $3.

Best lot of Bantams not less than three—Charles Marble, Buffalo, $3.

Best lot of game not less than three—S. B. Colt, Irondequoit, $3.

Best lot of turkeys not less than three—S. B. Colt, $3.

Best lot of Muscovy ducks not less than three—George Cummings, Rochester, $3.

Best lot of small ducks not less than three—John N. Smith, Attica, $3.

Best lot of Guinea hens not less than six—E. S. Treat, Rochester, $3.

Best pair large geese, Lewis F. Allen, Black Rock, $3.

Best lot poultry owned by exhibitor—F. W. Collins, East Bloomfield, $10.

Best exhibition of pigeons—Miss Mary Mines, Rochester, $3.

Best lot of wild turkeys, L. K. Haddock, Buffalo, $3.

## PLOWING MATCH.

1. Alexander Rumsey, Ogden, Monroe, co; Curtis plow; Wm. Middleton plowman, $10.—2 J. F. Plato, Batavia; Curtis plow; A. H. Plato Plowman, $8.—3. D. B. Westfall, Lyons, Wayne co.; Wisconsin plow; D. B. Westfall plowman, $5.—4. J. F. Plato, Batavia; Curtis plow; J. F. Plato plowman, Transactions.

Of boys under 18 years of age, but one entry was made; the work was well performed, and complied very closely with the rules of the Society. The first premium is awarded to G. H. Goodhue, Wheatland, $10.

## FARM IMPLEMENTS.

Best farm wagon, T. S. Eastman, Deerfield, $5.

Best harrow, Rapalje & Co , Rochester, $3.

Best corn cultivator, made entirely of iron, Eddy & Co , Union Village, $3.

Best fanning mill, Grant's patent, Rapalje & Co., Rochester, $5

Best corn stalk cutter, Densmore's Patent, Brown & Mills, Mt. Morris. $5.

Best straw cutter, Ruggles, Nourse & Co.. Rapalje & Co., Rochester, $3.

Best corn and cob crusher, by horse power, C. B. Tuttle, Rochester, $5

Best clover machine, T. D. Burrall, Geneva, $5.

Best ox cart. T. S. Eastman, Deerfield, $3.

Best horse rake, Jared Clark. Unadilla Works, Otsego, $2.

Best ox yoke, J. P. Fogg & Bro., Rochester, $2.

Best roller for general use, Rapalje & Co , Rochester, $5.

Best clod crusher and roller combined, John Walker, Chili, $5.

Mr. Jessup, of Lyons, vol. of Trans. for an improved hay and stalk cutter.

Z. W. Smith, Honeyoye Falls, vol. Trans. for Swift's patent improved horse rake.

Best wagon harness, G. S. Jennings, $2.

Best axes, D R Barton, Rochester, $2.

2d do. L. & J. White, Buffalo, small Silver Medal.

Best grass scythe, D. J. Millard, Sauquoit, Oneida co., $2.

Best grain scythe, North Wayne Company, Rapalje & Co., $2.

Hay knife, D. J. Millard, vol Trans.

Bramble scythe, D. J. Millard, Diploma.

Bush hook, L & J. White, vol. Trans.

Scythes attached to snaths, Draper & Clark, Diploma.

Best grain cradle, Daniel Duesler, $2.

Grain cradle by boy, 12 years of age, Oliver Swift, small Silver Medal.

Best lever cheese press, F. S. Clench, vol. Trans.

Best churn, N. B. Clark, $2.

Best hay forks, D. J. Millard, $2.

Best straw forks, W. Brand & Co., $2.

Best manure forks, D. R. Barton, $2.

Best hand rakes, C. F. Crossman, $2.

Best hay racks, Rapalje & Co., $2.

Best doz. twine brooms, C. F. Crossman, $3.

Best double carriage harness, J. B. Slasson, Albany, $2.

Best single harness, L. J. Lloyd, Albany, Diploma.

Best washing machine, Joseph Hall, vol. Trans.

Best hoes, R. & E. Clarke & Co., Diploma.

Axe helves and scythe snath, Daniel Deusler, vol. Trans.

Weight power churn, W. G. Simpson, Diploma.

Best horse power for general purposes, on the sweep or lever principle, H. E. Smith, Fowlerville, $5 and Diploma.

Best horse power on railroad or endless chain principle, Emery & Co. Albany, $5 and Diploma.

Best iron horse power, H. E. Smith, Fowlerville, Livingston, co., $5 and Dip.

Best thrasher to be used with horse or steam power, Eddy and Co., Greenwich, Washington, co , $5 and Dip.

Best grain drill, with apparatus for depositing manure, Pierpont Seymour, East Bloomfield, Diploma.

Best wheat cultivator—"Rogers' wheel Cultivator," Chappell, Whitesides & Barrett, Brockport, Dip.

Best broadcast sower, Pierpont Seymour, East Bloomfield, Dip.

## MACHINERY.

Steam engine on wheels, for farm use, 1st premium, Hoard and Bradford, Watertown, Medal and $25. 2d. Chas. Ross, Roch. $20.

Conical Burr stone grist mill, Charles Ross, Rochester, Dip.

Cast iron wheel cultivator, new invention, Silver Medal, D. Hmkston, Clarkson, (made by Chappell, Whitesides & Barrett.)

Ketchum's mowing machine, W. F. Ketchum, Buffalo, Certificate.

Portable cider mill press, A. & S. D. Freer, Cortlandville, $3.

Gang of plows, I. D. Smith, Shelby, Orleans co., commended.

Burr stone flouring mill, A. S. Sterling & Co , Buffalo, S. Medal.

Improved horse hoe cultivator and shovel plow combined, Hiram Wright, Morganville, Genesee co., $3.

Steam drier for grain, flour, meal and lumber, H. G. Bulkley, Kalamazoo, Michigan, Dip. and Silver Medal.

Machine for breaking and cleaning flax and hemp, F. A. Clements, Springfield, Massachusetts, Dip. and S. Medal.

Enos Boughton, East Bloomfield, thistle digger and cultivator, a simple and effective implement, Silver Medal.

Rapalje & Co., Wheeler's combined thrasher and cleaner, a new invention and good article, $3.

Rapalje & Co., Segner & Shipton's patent seed drill, $3.

Samuel Davison, Greece, single plow seed sower and coverer, and gang plow seed sower and coverer, Trans.

## REAPING MACHINES.

These machines are very important to the farmer, but the judges have been unable to decide fully on the merits of any one machine over another, having no facilities for testing the practicability of the machines.

Mr. B. Densmore has an improvement over many others in an iron tooth rake passing the grain off at one side, by the power of the machine.

Mr. A. Palmer has also a self-operating rake on his machine, which is very ingenious and simple.

Mr. T. R. Hussey's machine is got up in better style and material than any other on exhibition.

McCormick's reaper was presented for exhibition merely. This machine was awarded the GREAT MEDAL at the exhibition in London.

The machines on exhibition are the following—

Hussey's reaper by Quick and Hall.

Self raking reaper, by Anson Palmer.

New-York reaper, Seymour and Morgan.

A convertible reaper, T. D. Burrall.

Densmore's reaping machine.

The executive committee decided on examining the report of the judges, that no premium could be awarded to the reapers until a trial was had, to enable the judges to decide as to the qualities of the different machines in operation.

## DAIRY.

*Butter*—Best lot, quality as well as quantity considered, made from five cows in 30 consecutive days, 25 lbs. of the butter exhibited, Stepto Woodruff, Almond, Allegany county. $25.

Best 25 lbs. butter made in June, G. C. Howard, Ogden, $10—2. F. Bishop, Geneseo, $5—3. L. L. French, Warren, Herkimer, Trans.

Best 50 lbs. made at any time, Amos Goulding, Le Ray, Jefferson county, $15—2. Wm. Shepard, Irondequoit, $10—3. Marcus Bickford, Victor, $5—4. G. W. Goodhue, Wheatland, Trans.

*Girls under 21 years of age*—Best lot of butter, not less than 10 pounds, made at any time, Emma Van Vorhees, Mendon, Silver Milk Cup—2. Lois Wells, Wheatland, Monroe county, Pair Butter Knives—3. Sarah Bingham, Ogden, Set Tea Spoons.

*Cheese one year old and over*—Best 10 lbs. cheese, Guy Reed, Rich-

mond, Ontario county, $20—2. E. F. Carter, Le Ray, Jefferson co., $10—3. C. W. Eells, Westmoreland, Oneida co., $5—4. W. P. Outley, Phelps, Trans.

*Best six dairies. from a county, not less than three cheeses from each*—Moses Eames, Rutland, Jefferson county, $30. Gardner Towne, Rutland, E. F., Carter, Le Ray, George Webb, Pamela, M. Bryant, Watertown, P. Hardy, Le Roy—Dairymen.

*Less than one year old*—Best 100 lbs. George Hammill, Rome, Oneida county, $15—2. Charles Benjamin, Rushford, Allegany county, $10—3. Almon Benjamin, Centreville, Allegany, $5—4. E. & H. Colvin, Hamburg, Erie, Trans.

### Bees---Robbing.

In September and October bees are very apt to rob each other, and many families are destroyed in this way.

The remedy is to lower the hives down and give but one passage way, and that not over two inches long for the strongest families, and to be contracted according to the strength of families down to a compass that will only admit a few bees to pass in and out at the same time. This is the *preventive* remedy. The populous hives, well filled with honey will require but little protection, but those hives that have been left weak by too much swarming, or from any other cause, are in danger. Whenever an unusual bustle is noticed around a hive, with dead bees on the ground in front, and the occupants of the hive around in squads on the alighting board, with stronger bees held as prisioners, you may know that there is danger. Numbers of bees will be slowly flying around on a level with the entrance, as if seeking for an unguarded passage, making a louder noise than usual. At twilight, when all other hives are quiet, bees will be seen to leave a robbed hive and fly away to their houses. This is the most sure test. In such a case, close the hive entirely for a day, but give the bees air. You may then open the passage way a very little, so as to allow a single bee to pass. Leave it thus for a day or two when it may be enlarged if no further trouble is apprehended. T. B. Miner. *Clinton, Oneida county, N. Y.*

### American Plows.

Eds. Cultivator—Gentlemen: In one of the interesting letters from London, of Mr. Johnson, Sec. of the N. Y. State Ag. Society, published in the September number of the Cultivator, we find the following paragraphs:

"I became acquainted at our trial of plows [in the neighborhood of London] with Count de Gourcy, a distinguished French gentleman, who is one of the most intelligent agriculturist I ever met with.

"He spoke in very high terms of our plows. He had seen three of them in operation in France, which had been sent over by some American gentleman who had purchased Rambouillet sheep; but his name he did not recollect. They were, he said, so light, so simple in their construction, so easily operated by the peasantry of France, and so cheap, that he preferred them altogether to any other plows. He expressed himself highly gratified with the performance of our plows at the trial—said they had accomplished all that was desired."

The gentleman referred to above, and of whose name Col. Johnson was ignorant, is John A. Taintor, Esq., of Hartford, Conn., to whom the breeders of the United States are greatly indebted, not only for his importation of Rambouillet sheep, but of very superior sheep from other distinguished flocks in France and Germany. The plows that Count de Gourcy so highly commends, were of our manufacture, and selected from our establishment by Mr. Taintor, about two years ago. We have repeatedly sent plows and other agricultural implements to Europe, and all have been highly approved of there—even in Old England herself. We mention this merely in defence of the sneers against American plows &c., which from the time they appeared at the Crystal Palace, up to the day of trial, it pleased the English press to throw out against them. After the trial the English editors changed their tone, and acknowledged the superiority of American implements in the handsomest manner. This was very manly on their part; and as interested parties, and in common with our fellow exhibitors, we feel quite obliged for their *amende honorable.*

Had we supposed that a "trial of plows" was to be made, we should have sent some to the Crystal Palace fitted for it; as it was, being completely unprepared for this, our plows worked to great disadvantage. Very resp'y. yours, A. B. Allen & Co. *New-York, Sept.* 15.

### Special Manures for Potatoes.

Eds. Cultivator—I suppose all things concerning the potato, its culture, productiveness, &c., are interesting, to a portion at least, of your patrons. And it is upon that supposition that I venture to lay before them an experiment which I have been trying the past summer. The soil is a light loam; the kind of potatoe, White Mercer; the time of planting, the second week in May; the manures used, Patagonia guano, "prepared guano," by Kentish & Co., of New-York, and bones ground and dissolved with sulphuric acid, (as per Prof. Norton's recommendation in the Cultivator.) One row was planted without any manure, bone being on either side, then the different kinds of guano, alternately, with the bone. The quantity of Patagonia guano per acre, used, 600 lbs.; of prepared do., 800 lbs.; of bone, 8 bushels. No other manure was used. The land planted was quite reduced. The result was as follows: the weights of the *merchantable*, and of the small potatoes, are given separately, with the total weight, the cost, &c.

| | lbs. oz. large. | lbs. oz. small. | lbs. oz. total. | Cost pr. acre. |
|---|---|---|---|---|
| 3 hills without any manure,..... | 1 0 | 0 8 | 1 8 | $0 00 |
| do bone by the side, ..... | 2 8 | 0 8 | 3 0 | 8 00 |
| Pat. guano, 6 hills, ..... | 4 4 | 1 8 | 5 12 | 12 00 |
| Prepared guano, 6 hills, ..... | 3 0 | 2 0 | 5 0 | 9 50 |
| Bone by the side, do ..... | 5 8 | 3 0 | 8 8 | 8 00 |

By the above table, it may readily be seen which manure causes the greatest product, and which furnishes that unanswerable argument, *cheapness*, which none can resist. The bone prepared for use, costs in the above but two-thirds as much as the guano, while the product is nearly three-fourths greater. The bone was ground in this place, of which about one and a half bushels were put in a half-hogshead; then one-third, (by weight,) as much acid as bone, diluted with twice its bulk of water. Stir well together, and in two or three days you have as active a manure as can be produced. There was a surprising luxuriance in the tops of the rows where the bone was put, remarked by all who saw them.

I think it excels as a top-dressing. From the slight opportunity which I have had of judging, I should say $5 per acre would double the crop of grass on the light

land which abounds in this vicinity, and greatly improve its quality. It may seem to some like a great undertaking, to purchase the acid at some distant place, transport it home, and use it. "*The strong stuff*," as some say, "I should be afraid to use it?" Well, now it is all imaginative difficulty. Just try it friends, and give us the result. S. R. H. *Hadlyme, Sept.* 5, 1851.

## Agricultural Exhibitions.

Addison County Vermont.—The show of this society took place at Middlebury, on the 25th of September. The number of animals exhibited was less than usual, in consequence of the weather being rainy the day preceding; there was still, however, quite a large collection of horses, cattle and sheep. Of the horses, most of the best specimens were the progeny of the well-known horse Black-Hawk, from six months to four years old. Some of these were very fine. A three-year-old colt, the property of Mr. Johnson, of Middlebury, is a beautiful animal.

There was a large collection of working oxen and steers, some of which made a good appearance; but most of the cattle were in rather low condition, in consequence of the pastures being parched with drouth—there having been but a trifling amount of rain since July. We are sorry to see that the farmers of this section, in general, bestow but little attention to their cattle; at least their cattle do not indicate the exercise of much skill in breeding—being too commonly, coase, hard-fleshed and large boned. It is to be hoped, however, that the laudible efforts now being made by a few individuals, will in a few years correct this evil.

The sheep were mostly Merinos. They comprised specimens of the French sheep imported by Mr. Jewett, the Silesian, imported by Messrs. Sandford & Co., and the descendants of the old Spanish stock. Of the latter, several lots offered by Mr. Hammond of Middlebury, were of superior character; and in symmetry, uniformity of appearance, and quality of wool, do much credit to Mr. H. as a breeder.

There were a few sheep shown under the name of Leicesters, but in general, they were by no means well-bred. The varieties of English sheep—as Leicesters and South Downs—would probably be profitable in this section for mutton, if well selected and well managed; but those who intend going into this business, would find their account in procuring the right kind of stock to begin with.

The show of fruits and vegetables was not large. There were some very handsome apples, showing that this fruit may be produced here in great perfection. The farmers would do well to turn their attention more to the business, and raise new orchards to take the place of those which are becoming old and unproductive. The collection of apples offered by Mr. Albert Chapman, of Middlebury, would have been considered fine at any exhibition.

Bucks County, Pa.—This society held its show and fair at Newtown, on the first of October. The gathering of the people on the occasion was one of the largest we have have ever seen at an exhibition of a county society, being estimated at 12,000 to 15,000. This society has established itself on an excellent basis; we believe this was its eight annual meeting, and the demonstration, both in regard to the spirit prevailing among the people, and the character of the exhibition itself, was such as reflected credit on the association and the county. The officers and members of the society may congratulate themselves on the flattering success which has at last crowned their patriotic labors. The society has purchased a lot of land, of about four acres, enclosed it with a suitable fence, divided it into proper divisions, and erected proper buildings, sheds, pens, &c., and have procured canvass, tents, and provided other necessary requisites for the exhibitions. We were much pleased with all these arrangements, which were evidently designed with a correct understanding of the objects to be accomplished.

There was a very respectable display of agricultural implements, most of which were manufactured in the county. We saw plows of good workmanship, made by Geo. Buckman, Upper-Makefield, and others by A. Blaker, Newtown. There were also on the ground, drill, reaping, and threshing machines, and most other articles used in farm labor.

Horses, cattle, and sheep were quite numerous. Owing to the very severe drouth which has prevailed in this section, (there having been but little rain from June to October,) live stock in general is much lower in condition than usual. Some good cows, and other cattle, were offered by Messrs. J. C. and Adrian Cornell, Longley, and others; and some mutton sheep, mostly of mixed blood, by the same. Among the latter we noticed some a cross of the African broadtailed breed, offered by Wm. W. Carr. There was a large show of poultry—comprising geese, ducks, turkies, and most of the varieties of fowls.

The fruit and vegetable departments were quite as good as could have been expected, considering the drouth, and the fact, also, that there is almost an entire failure of apples and pears throughout this section of country.

The manufacturing departments appeared to contain many articles worthy of notice, but from the great pressure of the crowd, it was impossible to examine them. Our attention was attracted by a beautiful specimen of raised worsted work (a chair), and a handsome painting (village at sunset), by Misses Olivia and Margaret Staveley, daughters of Wm. Staveley, Esq., of Partridge-Hall Farm.

We shall give some notes in regard to the farming of Bucks county, in a future number.

Philadelphia County, Pa.—This "ancient and honorable" association held its exhibition for the present year on the 8th and 9th of October. To this society belongs the proud distinction of being the first of the kind organized in America—dating from 1785. Among its founders we recognize the names of many of the prominent men of the revolution—as Timothy Pickering, Robert Morris, John Jay, Richard Peters, Benj. Rush; and among its honorary members and correspondents were Arthur Young, Sir John Sinclair, and other celebrated British writers on agriculture of that

period. In these days when the agricultural interest has attained an ascendant position in popular estimation, and agricultural societies have become common in all parts of our country, we seldom realize how much we are indebted to the example and influence of these first laborers in the cause. It is no flattery to say that the early "Memoirs of the Philadelphia Society for Promoting Agriculture," comprise many papers of great value. They contain the germs of much of the improvement in agriculture which it is our happiness to enjoy. In this view, perhaps no society in existence is entitled to higher credit for the benefits it has conferred on the public.

The exhibition of the society on the present occasion, when considered in reference to the unfavorable character of the season, the scarcity of grass, and the suffering of many crops from drouth, was highly creditable. The number of animals was larger, as we were informed, than at most of the previous exhibitions. We cannot speak in high terms of the horses, in the aggregate, though there were a few which appeared well. Of these, a stallion, 6 years old, owned by DANIEL STOUT, Cheltenham township, Montgomery county, was well formed for strength and endurance. His sire was the imported Norman horse owned by EDWARD HARRIS, Esq., of Moorestown, N. J. The cattle comprised specimens of the Short-horns, Devons, Alderneys, and various mixed breeds. JAS. GOWEN, Esq., the President of the Society, exhibited several fine Short-horn cows, heifers, and bulls; others of the same breed, offered by Messrs. CADWALLADER, NEWBOLD, BARTON, and BLIGHT, deserve notice. Some of the Devons by Messrs. SHERIDAN, SMITH, and others, were fine. There were several yoke of superior working oxen, bred in Connecticut, offered by Mr. GOWEN, and others whose names we did not learn. The sheep were of the English varieties. AARON CLEMENT, Esq., exhibited several fine specimens of South-Downs, Leicesters, and mixed breeds. Some good Cotswolds, or improved Oxfordshires, were exhibited by BENJ. WOOD, of Sugartown, Chester county. Some of them were from the flock of Col. WARE, of virginia. The show of swine was large, and comprised good specimens of Leicester or Dutchess county stock, offered by Mr. WILKINSON, and others, of the Berkshire, of which a very handsome specimen was offered by Mr. GOWEN, and an imported white Berkshire boar offered by JAMES DEVEREAUX, of Germantown. There was a great show of poultry, showing that the sober citizens of the Quaker City and its suburbs are not entirely free from the epidemic which has affected other parts of the country. Though a large proportion of the fowls were of the *Shank-high* tribe, there were some good ones. Deserving mention were those under the name of Gold-spangled, or Pheasant fowls, (Bolton bays, or Golden-Hamburghs,) offered by HENRY DITMAN. They were of almost unexceptionable form, but had not the exact markings required by the standard for that variety. The white fowls offered by Rev. Mr. BUMSTEAD, of Roxborough, were good.

The specimens of fruits, vegetables, grain, and other seeds, were numerous, and in general of superior quality—much superior in all respects than could have been expected under the unexampled drouth. The specimens of farm products from the farm of Mr. GEO. BLIGHT attracted much notice; as did those offered by Mr. SHERIDAN.

A handsome display of implements was made by Messrs. PROUTY & BARRETT, and a smaller but good assortment, by Mr. C. B. RODGERS.

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WASHINGTON COUNTY, N. Y.—We have been furnished by a correspondent with the following account of the exhibition of this society:

The eleventh annual Fair and Cattle Show of the Washington county Agricultural Society, was held at South Hartford on the 17th and 18th of September. The farmers of this section have suffered for a long time from excessive drouth, and this circumstance was unpropitious for the show; but notwithstanding this discouragement the farmers with commendable public spirit brought out their stock, and made the show such an one as was creditable to the husbandmen of the county, and one that fully met the expectations of the great number which the increasing interest in these exhibitions called together. The show of cattle was good, especially of working oxen —about thirty yoke being exhibited—some of great excellence. In sheep the show was remarkably good. The exhibition of horses was very good, much the best ever had in the county; many animals of superior excellence. The amount of fruit exhibited was not large, although there were some specimens of fine quality.

The ladies' department, containing many articles of rare beauty, was peculiarly interesting and excited much attention. Much credit is due the ladies for the fine taste displayed in adorning the tent with evergreens and flowers.

The plowing took place the second day. The successful competitor used a plow manufactured by Eddy & Co., Union Village.

An address, which highly interested the large audience, was delivered by Prof. NORTON of Yale College. We have reason to believe that this address will do much towards removing existing objections against connecting science with practical agriculture, and will tend to create a laudable rivalry among farmers, and awaken a spirit of investigation and inquiry, for which it was eminently calculated.

It is with great satisfaction that we find our fairs every year becoming more interesting. This show, in most departments, was the best that has been held in the county, and furnishes ample evidence that farmers are awake to their true interest. S. *South Hartford, Sept.* 22, 1851.

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BERKSHIRE, MASS.—This county has two Agricultural Societies—the old Berkshire, proper, and the Housatonic. Both are well sustained, and for several years, each has had its annual exhibitiuns. The show of the Housatonic Society was held the present season at Great Barrington on the 24th and 25th of September; and that of the Berkshire Society at Pittsfield on the 1st and 2d of October. This is an old society, and it is entitled to the credit of holding the first agricultural exhibition in this country, which took place at Pittsfield in 1810. The interest then originated has been well sustained, and the prosperity of the county of Berkshire,

is due, in a great measure, to the influence exerted by her agricultural societies.

Hampden County, Mass.—Show at Springfield, Oct. 1st and 2d. The Republican says: "In speaking of the Fair, as a whole, we but echo the opinion of all whom we have heard express an opinion, that it has never been equalled in the county. We remember nothing in the exhibition that was not above mediocrity, and much, very much, we may certainly say, of surpassing excellence." The address of Prof. Norton, is spoken of in terms of high commendation.

Vermont State Fair.—The first effort at a State Fair in Vermont was made on the 10th and 11th of September last, at Middlebury. We regret that we had not the opportunity of attending. The weather was most oppressively hot; but a collection of people estimated at 12,000, was on the ground, and the number of animals and articles exhibited was as large as the most sanguine anticipated. It is stated that there were in all, 400 horses exhibited, "comprising many of the superior animals known in the state;" 300 meat cattle; 1,100 sheep; 50 lots poultry; 1,200 "inanimate objects." The horses and sheep formed the chief attraction. The celebrated horse Black Hawk, with upwards of sixty of his progeny, from the age of six years down to three months, passed in regular procession around the circle devoted to the show of horses. There were other fine specimens of the Morgan stock, particularly the noted Green Mountain Morgan, owned by Silas Hale, Royalton, Mass. The sheep comprised specimens of all subvarieties of the Merino—French, Silesian, Saxon, and the true Spanish.

At the close of the exhibition a regular organization of a State Agricultural Society was effected, and the following officers duly elected for the ensuing year:

Frederick Holbrook, Brattleboro', President; Wm. Nash, Joseph W. Colburn, Harry Bradley, Erastus Fairbanks, Vice-Presidents; J. A. Beckwith, of Addison, Cor. Secretary; C. S. Noyes, Recording Secretary; John Spaulding, Treasurer; J. S. Pettibone, J. K. Parish, Geo. T. Hodges, P. Baxter, L. Brainard, Additional Directors. A meeting of the Directors was held at Burlington on the 25th of Sept., at which it was resolved to petition the legislature at the coming session, for an act of incorporation.

Ohio State Fair.—The second State Fair for Ohio, took place at Columbus on the 24th to 26th September. The number of people who attended, is thought to have been nearly 100,000. The character of the exhibition appears to have been creditable to the state, and satisfactory to the members of the society and the public. We presume the result will be salutary in reference to the interests of the citizens of the Buckeye State.

Strength of a Bull.—The *Massachusetts Plowman* states that a bull, three years old, drew a cart loaded, up a hill, with three tons of stone, and fifteen men on the top of it—the whole equal to *four tons two hundred and fifty pounds.* It was a load on which the working oxen had been tried, which were exhibited at the show of the Essex county Ag. Society. The bull was hitched to the end of the tongue.

### Sales of Stock at the State Fair.

One of the most important advantages afforded by agricultural exhibitions, is the opportunity which they present of purchasing such animals and articles as persons are in want of, who attend these gatherings. This feature of the New-York State Fairs has done much to keep up their interest, and to bring annually together large numbers of choice animals. The sales of stock and implements which have taken place at these exhibitions for the last four or five years, have been very large, and at the late show at Rochester were probably equal to any former occasion. We notice some of the sales of stock which have come to our knowledge—it being a matter of interest to the public to learn the whereabouts of fine animals.

The Short-horn bull Halton, exhibited by Hon. Adam Fergusson, of Canada, was purchased by S. P. Chapman, Esq., of Clockville, Madison county, N. Y. We may mention in this connection that Mr. C. has sold a yearling heifer and a bull calf to Mr. E. G. Alden, of Boston—the animals being destined for a farm purchased by Mr. A. in Madison county. The price paid for the two, was $275.

The fine (red) Short-horn cow exhibited by Mr. Fergusson, was purchased by N. J. Becar, Esq., of Smithtown, Long Island.

The fine Devon cow (sister to the noted bull Major) exhibited by Mr. Gapper, of Canada, has, we are informed, gone into the possession of Messrs. W. P. and C. S. Wainwright, of Rhinebeck, Dutchess county; and Messrs. W.'s beautiful Devon bull, which received the first premium, was disposed of to R. H. Van Rensselaer, Esq., of Morris, Otsego county.

Mr. E. P. Beck, of Sheldon, Wyoming county, sold to Mr. Freeman, of Port Dover, C. W., two fine yearling Devon heifers, at $100 each.

Mr. E. P. Prentice, of Albany, sold two Ayrshire heifers to Mr. Penny, of Newark, Ohio. The superior Ayrshire cow, which was exhibited by Mr. W. A. Mills, of Mt. Morris, which took the first premium, was purchased by Mr. Prentice.

We understand that extensive sales of sheep of various breeds, and also of horses, took place, but we have not learned particulars.

Hereford Cattle.—We are requested by Mr. Sotham, to copy the following from an article in the *Mark Lane Express* of September 15th, under the head of "Meeting of the Royal Agricultural Society."

"The prize Hereford bull, shown by the Right Hon. Lord Berwick, of Cronk-hill, near Shrewsbury, aged four and a half years, was unquestionably the best bull in the yard. He has a large square frame, of great depth, well covered with flesh of good quality; he has a good skin, is short legged, girts nine feet, and is six feet in length. Altogether he is a large and compact animal. The second prize Bull, belonging to Mr. Price, was also a remarkable animal, but not to be compared to Lord Berwick's bull. Although but three years and twenty days old, he girted eight feet seven inches, whilst the prize Short-horn Bull, a much higher, and apparently a much larger animal, girted two inches less, although three months older. The other classes of Herefords contained some admirable specimens, and although not so numerously exhibited as the Short-horns, yet we think, as a class, they stood unequalled."

### Trees for Waste Lands.

Eds. Cultivator—On most farms there is generally more or less waste lands, such as steep hill sides, gravelly knolls, &c. These lands, in their barren state, always give a cold and forbidding appearance, and often mar the beauty of the farm. To improve these lands in the shortest way, and at the least expense, is the next thing. Probably many farmers will have a variety of ways of doing it, and if they bring about the desired result, all very well. But the majority of farmers will content themselves to do just nothing at all. Yet there are some who are inclined to improve such lands, when they are convinced of its importance, and know how it can be done. The practice of plowing and manuring such lands is fraught with many evils, as in plowing knolls and side-hills the wash of rains is so great as to keep the land in sterility, besides the difficulty in plowing and cultivating it to any advantage.

Now I think the best way to manage such lands, is to let them grow up to timber. On some lands of this kind young sprouts will come in naturally, which, if taken care of, and left undisturbed by the plow, or by cattle, will soon make young trees. On other lands it would be necessary to plant acorns and chestnuts, or else set out the young trees; and these trees, with proper care, would in a few years make a handsome grove. It is not intended to make a forest on these lands, but more to leave them scattering, like the "ouk openings" of the west, free, of course, from all underbrush.

When these trees get sufficient size to shade the ground well, the grass will begin to come in, and in a few years a clean grass sward will be made. We are satisfied that what these lands want most is *protection* from the scorching rays of the sun, and the washing of rains. In proof of this, any farmer must have noticed how soon a grass sward will form under a tree where it stands on a barren knoll. Probably the small fibrous roots of the tree help to make the sward, and then the cattle repose under its shade, and add their excrements to the soil; so by all these agents combined, a good soil is formed. These ranges of side hills and knolls, after the trees get grown to sufficient size, may be kept in permanent pasture, both for sheep and cattle. Thus a farmer, after a few years, would have the satisfaction of seeing his former barren hill sides converted into handsome groves and belts of timber, adding much to the beauty of the farm and landscape.

Often, in the line of old fences, the hickory tree will come up, and if protected a little, will in a few years make a fine tree. I think this tree decidedly one of the finest forest trees in this country, as its leaves are large, it affords a good shade, and a fine protection from the sun. L. Durand. *Derby, Conn., August* 30, 1851.

### Kerr's Poultry Book.

Eds. Cultivator—In a very well written review of Dr. Kerr's edition of Dixon on Poultry, in your last paper, the reviewer alludes somewhat uncharitably to certain objectionable passages in the letters of one of Dr. K.'s correspondents. As I have good reason to know that at least one of those letters was not designed for publication at all, and none of them intended by the writer to be published "word for word," without curtailment or alteration, you will permit me to offer this in palliation. Expressions that are not to be tolerated in print, may be almost excusable in private confab, or correspondence between cronies.

There is one point, however, on which I must join issue with Observer, and the very respectable rhyming worthy whom he quotes to prove that "want of decency is want of sense." The poet needed a rhyme, and so he wrote "want of sense," carelessly, of course, for he surely had too correct an appreciation of his own powers, to charge himself seriously with lack of brains. For truth or meaning, any other expression would have answered as well, but it would not *jingle*. A greater bard, who lived on the banks of Avon nearly 300 years ago, and whom a young lady of my acquaintance very admiringly pronounced "*a smart man*," used a great many "immodest words," and so did Etherge and Rochester, and Buckingham, and many of the famous wits of by-gone days, and yet no one will accuse them of want of sense. The condemnation is altogether too sweeping in its character to be just. A decided want of decency is certainly very censurable, but not amenable to the charge which Mr. Observer endorses by quoting. Observee. *Northumberland, Pa., Sept.* 8, 1851.

### Cross-breeding Animals.

A pamphlet has lately been published in Scotland on the effects of cross-breeding, by Alexander Harvey, M. D. We have not seen the work, but have seen frequent notices and extracts from it in English and Scottish journals, and in the *Quarterly Journal of Agriculture*, there is a review of it by the editor, Mr. Stephens.

Dr. Harvey propounds a new theory in relation to some ideas connected with cross-breeding, which are thus stated:

"There is a circumstance connected with the process of breeding in the higher classes of animals which seems to me to merit a larger share, than it has yet received, of the attention of the agricultural body. It is this,—that a male animal that has once had fruitful connexion with a female, may so influence her future offspring begotten by *other* males, as to a greater or less extent *engraft* upon them his *own distinctive features*—his influence thus reaching to the subsequent progeny, in whose conception he himself has no share, and his image and superscription being, so to speak, more or less inscribed upon them."

He proceeds to cite several instances of the characters of the male by which a female first conceived, being visible in offspring afterwards produced, from other males. One of these is the case of the Earl of Morton's mare, which has been often mentioned. The mare was first covered by a quagga, an animal of the assinine family, with stripes like those of a zebra. She produced a hybrid, which had the marks of its sire, as might have been expected. But a singular result followed. The mare afterwards produced three foals in successive years, by an Arabian horse, all of which had stripes like those of the hybrid!

Dr. H. has gathered similar facts in regard to sheep and other animals, and he thinks there are analogous phenomena in the human species.

Mr. Stephens, (the reviewer of Dr. H.,) sums up his

own views in regard to Dr. Harvey's theory in a few words, and in the following conclusion we think he will be sustained by general observation:

"From the time we read Dr. Harvey's first paper, we doubted altogether the correctness of this explanation. We thought then, as we still think, that the resemblance of the subsequent offspring to the first male by whom the mother was impregnated, was to be explained upon the principle of *mental influence*, and not upon *inoculation* of the mother's blood, by the matter of the first foetus that she bore."

### Salt for Animals.

Professor SIMONDS, Veterinary Inspector to the Royal Agricultural Society, observes, in relation to the action of salt on the animal economy, that "it is exceedingly beneficial in moderate quantities, but prejudicial in large ones." He thought horses might take with advantage from an ounce and a half to two ounces of salt, daily; but that an excess of it would render animals weak, debilitated, and unfit for exertion. Similar facts were applicable also to oxen, which accumulated flesh faster by the judicious use of salt, than without it. He cited Arthur Young, and Sir John Sinclair, to show that salt had a tendency to prevent the rot in sheep. Prof. S. added as his own opinion, that salt, by its action on the liver, and the supply of soda it yielded to the bile, led to a greater amount of nutriment being derived from the food. The substance, he said, was also well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. Several members of the R. A. Society, as Col. Challoner, and Mr. Fisher Hobbs, stated that their experience led them to agree with Prof. Simonds, in regard to the value of salt for animals. In reference to the mode of giving it, the practice of placing large lumps of rock salt in fields or yards, where it was always accessible to the stock, was mentioned with approbation. This practice is now adopted by many farmers in this country, and after several years trial is preferred to the former mode of giving salt periodically. When animals are only allowed to have salt once or twice a week, it is sometimes the case that they eat too much at once, but by having it constantly in their reach, they eat in such quantities as their systems require, and it assists digestion, and promotes health and thrift.

### Fire Annihilator.

There seems to be no doubt that the ingenuity of man has at last devised a means by which the "devouring element" may be in a great degree deprived of its terrors, and its power to harm. A man in England, by the name of PHILLIPS, has obtained a patent for what he calls a "Fire Annihilator," and is described as "a machine containing a chemical preparation, which, whenever occasion demands, will discharge, with the power of steam, a vapor in which flame cannot exist." It has been subjected to several tests during the great exhibition at London, and in all of which it has proved entirely effectual in accomplishing the purpose for which it was designed. One of the most striking and gratifying experiments for testing the efficacy of this invention, was made by filling the hold of a vessel of 150 tons burden, with the most combustible materials, which were set on fire, and allowed to burn with the hatches closed, for several minutes, when, on admitting the air, the flame burst forth with great power, ascending high above the deck.

"The word being given by Mr. Phillips," says an eye-witness, "his men brought the portable machines forward. Each of these portable machines is of about 20 horse power, that is to say, from the peculiarity of the invention, the vapor from the nozzle or spout of each, was admitted at that ratio. Two of these were brought in succession on the burning mass from the mouth of the hatchway, and in three seconds the vapor had extinguished the great body of the flame, leaving one or two small points where the flame was discernible; and in about two minutes the vessel was almost clear of all smoke."

The experiment was witnessed by several officers of the Royal Navy, who severally signed a certificate embracing the facts above mentioned.

## ANSWERS TO INQUIRIES.

DRAIN TILE MACHINE.—A. B., South Carolina. We know of no other machines for making tiles, than such as have been previously mentioned in our journal. We do not see how it would be possible for a machine to be made, that would answer the purpose, for a much smaller price.

RAISING WATER BY WIND POWER.—T. S. E., Salem City, Oregon. We have no wind-mills in operation for raising water in this vicinity. We have seen pumps worked by wind for this purpose—the apparatus being moved by the ordinary mode of attaching sails to the arms of a shaft.

NAME OF PEAR.—B., Nassau, N. Y. The pear you left with us, is the summer Bon Chretien. It is a native of Europe, but has been long cultivated in this country.

CORN-STALK CUTTER.—R. S. C., Elmira, N. Y. We know of no machine better adapted to this purpose than Wheeler's, which is for sale by EMERY & Co., and WHEELER & Co., of this city. It is adapted to horse power. Price $28. Hay or straw can be cut by the same machine.

BUCKTHORN.—J. C., Brandon, Vt. The buckthorn is very different from the common white or any other species of thorn. The former is the only kind which has generally succeeded in the Northern States. The seeds can be obtained at most seed-stores in Boston, Albany, or New-York. If planted this fall, two inches deep, the frost will probably soften the outer covering so much that the seeds will mostly vegetate next spring.

RECLAIMING SWAMPS.—S. L., Gay's River, N. S. The land you describe could probably be made to produce good crops of hay. The first thing to be done is to make the ground so dry that the cultivated grasses will grow; next to kill out the wild growth, and sow the seeds of the kinds wanted. If the ground is solid enough to work horses or oxen, plow and level the ground, dig out and burn, (or carry off,) the roots and turf which appear above the surface; sow timothy and red-top, either in spring or early autumn, and bury the seed slightly with a rake or bush-harrow. As to the expense, it is impossible for an estimate to be made without knowing all the particulars, such as the price of labor, and the exact circumstances, relating to the situation of the ground.

ICE-HOUSE.—W. A. M., Chautauque county, N. Y. The plan of which you speak, described in our volume

for 1847, has been adopted in many instances, and with entire success. In the principal ice-exporting districts, the houses for storing it are of late generally built above ground.

HAY PRESS.—B., New London, Ct. Deidrick's press, made by L. DEIDRICK, Kinderkook, N. Y., with some improvements which have been lately made, is thought to be equal if not superior to any in use. It is made both in a portable and stationary form—the former being sold at $100, and the latter at $200 to $300, according to size.

## NOTES FOR THE MONTH.

ACKNOWLEDGMENTS.—Communications have come to hand, since our last, from Observee, A. B. Allen & Co., H. M. Congar, Prof. J. P. Norton, Wm. H. Sotham, J. H. Salisbury, W. A. Mayborn, D. B. Richards, S. W. Bartlett, Tyro.

THE STONE-HILL POTATO.—We have received from Mr. D. A. BULKLEY, of Williamston, Mass., a sample of a variety of potatoes with this name. Mr. B. states that he raised them from seed of the Carter potato, the present being the fourth generation from their origin, and they have this year been very productive on his farm. The tubers left with us are large, white, and every way fine in appearance, and having had several of them cooked, we can say the quality is excellent.

☞ MR. JOHN GILES, of Providence, and Dr. EBEN WIGHT, of Boston, will accept our thanks for a pair of beautiful Aylesbury ducks, received from each them.

POTATOE DISEASE.—We have received through His Excellency Gov. HUNT, two letters from Mr. SMITH FANCHER, of Broome county, on the subject of the potato disease. He thinks the disease is caused by "a fly, rather larger than our common fly, of rather a blackish cast, with gilt spots on its wings, of a golden brightness." To prevent the attacks of this fly, he recommends sowing slacked lime on the tops of the potatoes, while they are wet with dew. This he thinks "will extract the poison and destroy the nit." The idea that this disease is caused by insects has been often advanced, and the evil has been charged on many species; but accurate investigation has shown the hypothesis to be without foundation. A similar remedy to that suggested by Mr. F., has been applied in numerous instances, without any effect to lessen the malady.

UNIFORMITY IN BREEDING.—A *family* of cattle exhibited by W. W. WADSWORTH, Esq., of Geneseo, at the late State Fair, deserves special mention. It consisted of a cow nine years old, and five of her offspring, viz: one cow, six years old; one ox, five, one cow, four; one heifer, three; and a sucking calf. We were told that there was another heifer, in the same family, fully equal to any of these, in good qualities. The parent cow and most of her progeny are red. She is perhaps, seven-eights Short-horn, and has been bred to Short-horn bulls. Her points and handling are excellent—scarcely surpassed by any, and equalled by very few of the Short-horn cows on the ground; and the same qualities are very strikingly apparent in all her progeny. The ox, (which belonged to a pair exhibited by Mr. W.,) was one of the most complete animals, in every particular, that we have ever seen. The whole family form such an example of *uniformity* in breeding, as is seldom attained.

TRIAL OF PLOWS.—By an arrangement between the officers of five county Agricultural Societies in Pennsylvania, a trial of plows took place on the farm of THOS. P. KNOX, Esq., near Norristown, Pa. on the 7th of October. Twenty plowmen with the same number of plows, competed for the prizes. The ground selected for the trial, though the most suitable that could be obtained in the vicinity, was very unfavorable. It was naturally of a tenacious character, and under the influence of three months drouth, had become more solid than any ground we ever before saw plowed. We understood that the rules by which the decisions were made, were that the furrows should not be less than six inches deep, nor less than ten inches wide, and that the plow which effected the most thorough pulverization of the soil, these requisitions being complied with, should be entitled to the preference. The awards were as follows: For the best plow, 1st premium to PROUTY & MEARS, Centre Draft, No. 5½, $50; 2d do. JESSE PAWLING, Jr., $30; 3d do. GEO. BUCKMAN, $20. For the best plowman, 1st premium to ABRAHAM GUILE, $25; 2d do. W. R. KENNEDY, $15; 3d do. J. B. WALKER, $10. Much of the plowing was done in a very creditable manner, considering the condition of the soil, and many of the plowmen evinced a skill which under more favorable circumstances would have caused their work to praise them.

MORE FRENCH MERINO SHEEP.—S.W. JEWETT, Esq., of Weybridge, Vt., has lately received 56 of these sheep, from the flocks of Messrs. Gilbert & Cughnot—making in all he has imported from France, nearly 300 head. We have had the opportunity of examining most of the latter importation, and several of the former. They appear to have been selected with care, and are more uniform in appearance, both as to shape and size of carcass, and quality of wool, than the previous importations of sheep we have seen from that country. Like other French Merinos which have been imported, they are much larger than sheep of the Spanish stock which have been bred here. It is to be hoped they will receive a fair trial in comparison with other stocks.

GOOD COWS.—SAMUEL W. BARTLETT, Esq., of East-Windsor, Ct., sends us an account of the produce of a Short-horn cow, (Red Lily,) owned by SOLOMON COWLES, Esq., of Farmington, Ct. The cow was exhibited by Mr. C. at the late show at Hartford, and the statement in reference to her was presented to the committee of which Mr. BARTLETT was chairman. "She is five years old; calved Sept. 16, 1851; gave in six successive days in September, an average of 36 lbs. 8 oz. of milk per day, which milk produced 12 lbs. 8 oz., or more than two pounds of butter per day; her keeping, pasture feed only." The following is given as her pedigree: "Red Lily, calved Jan. 4, 1846; got by King Philip, American Herd-Book, 85; gr. sire North-American, English Herd-Book, 684; gr. gr. sire Yorkshireman, 5700. Dam

Red Lily, Rosabella, by Dictator 3591; gr. dam White Tulip, by Whisker, 5639; gr. gr. dam Tulip, by Patriot, 2412."

At the late show of the Berkshire county Ag. Society at Pittsfield, Mass., Geo. S. Willis, Esq., received the first premium for a cow, which was stated to have produced from the 18th day of June to the 24th, inclusive, seven days, 315 lbs. milk, averaging 45 lbs. per day, and making 16 and 14–16 lbs. butter; and in seven days in September, 266 lbs. milk and 14 and 2–16 lbs. butter.

The Horse Black-Hawk and his Progeny.—From a late visit to Vermont, we learn that this stock is more and more highly esteemed as it arrives to a proper age to be tried. This creates a ready demand for them at high prices. A yearling colt was lately sold by Dr. Rice, of Bridport, for $1,000. His destination is Chicago, Illinois. Instances are not very rare of $1,200 to $1,500 being obtained for colts of two to three years old, and $200 to $500 for fillies. One of the finest colts we ever saw, is owned by Messrs. Hill and Walker, of Bridport. He was foaled the 2d of July, last; was by Black-Hawk, dam by Comet, a son of Sherman Morgan. He has, even now, almost the finish and development of a mature and perfect horse. We saw the old horse in harness, again. He still moves with great ease, and shows much of the nerve and elasticity for which he has always been distinguished. We notice that some newspapers, in giving an account of the Vermont State Fair, make a distinct class of Black-Hawk and his progeny, and another distinct class under the head of "Morgan Horses"—thus giving the impression that Black-Hawk does not belong to that noted family. On this point it is sufficient to say, that the writer of this is in possession of the most positive evidence which a case of this nature admits of, that Black-Hawk was begotten by the horse called Sherman Morgan.

Experiment with Potatoes.—Mr. J. W. Gray, of Ball's Pond, Ct., sends us the following: "Last spring I planted three rows side by side across a small patch. No. 1 was planted with large potatoes cut, and two halves put in each hill, three or four inches apart. No. 2 was planted with potatoes of the same size, one in each hill, without cutting; and No. 3 with small ones two in a hill. They were dug to-day and yielded as follows: No. 1 yielded one bushel; No. 2, 26 quarts; and No. 3, 20 quarts. The soil was the same, and all received the same cultivation. Nos. one and two were about equal in size, with about the same proportion of small ones in each, while in No. 3 there was more small ones in proportion to the number. If the small ones were selected from No. 3 and planted by the side of the larger ones from No. 1 or No. 2, for two or three successive years, no doubt the difference would be much greater."

Improved Meat-Chopper.—At the late exhibition of the Philadelphia county Agricultural Society, a machine for cutting meat for sausages was exhibited by J. Bodine, of Trenton, N. J., which appeared to operate in a very satisfactory manner. The knives are attached to the ends of levers about four feet long, each having a seperate action, and they strike on a revolving block on which the meat is placed—the knives being raised, alternately, by a tappet wheel, and fall perpendicularly, of their own weight. The machine was operated by a crank turned by hand and worked with great rapidity. We were assured that fifty pounds of meat had been cut by it fine enough for the best sausages, in five minutes.

Number of Animals Exhibited at the late Fair of the N. Y. State Ag. Society.—The number of animals exhibited in the different classes, according to the entries, was as follows:

| | | Total. |
|---|---|---|
| Cattle.—Short-horns—Bulls and bull calves, | 44 | 114 |
| Cows, heifers, and heifer calves, | 70 | |
| Devons—Bulls and bull calves, | 62 | 173 |
| Cows, heifers, and heifer calves, | 111 | |
| Herefords, | | 27 |
| Ayrshires, | | 12 |
| Natives and cross-bred, | | 79 |
| In the "Foreign Class"—Short-horns, | | 13 |
| Devons, | | 14 |
| Alderney, | | 5 |
| Hungarian, | | 2 |
| Working Oxen, | | 28 |
| Steers—three years old, | | 32 |
| do two | | 16 |
| do one | | 22 |
| Fat cattle—Grass-fed, | | 11 |
| Stall-fed, | | 14 |
| | | 562 |
| Horses.—Class "All work," | | 107 |
| Draught, | | 22 |
| Thorough-bred, | | 21 |
| Three-years-old, | | 38 |
| Two-year-olds, | | 21 |
| Yearlings, | | 15 |
| Matched—Draught—4 pair, | | 8 |
| do Carriage—52 do, | | 104 |
| Foreign—Sucking foals not included, | | 26 |
| | | 462 |
| Sheep.—Merinos, | | 152 |
| Saxons, | | 47 |
| Long-wooled, | | 127 |
| South-Down, | | 139 |
| Cross-bred, | | 27 |
| Foreign—Saxon and Merino, | 8 | 57 |
| Long and Middle-wooled, | 49 | |
| | | 549 |
| Swine.—Including sucking pigs, | | 117 |

Poultry.—The number of entries was 34. The number of specimens in each lot was not in all cases specified, but would amount in the aggregate to 300, or over.

Twin-calves.—*A male and female.* In general, when a male and a female calf are produced at one birth, the female is incapable of breeding, being what is called a "free martin." There are, however, exceptions to this rule, and the organization of some females, produced at the same birth with males is so perfect that they are prolific. Mr. Benj. Sheppard, of Greenwich, N. J., informs us that on the fifth of May, 1849, one of his cows dropped two calves—a male and a female—and on the 11th of October last, the female dropped a strong and healthy calf, and she appears likely to make a good milker.

Imported French Merino Sheep.—We have received from S. W. Jewett, Esq., of Weybridge, Vermont, a note in reference to the sources from which he obtained his French Merino sheep. Respecting reports which it is said have been circulated, that his sheep were, with few exceptions, "grades and culls," Mr. J. says—"I have simply to say that so far from my sheep being grades and culls, they were selected by myself in person from flocks descended from the best blood in Spain, and purchased with special reference to the wants of this country. I will cheerfully give any information to any person, about these sheep, and the address of those of whom I

purchased." Mr. J. names Messrs. GILBERT & CUGHNOT as the persons of whom many of these sheep were purchased.

MOORE'S RURAL NEW-YORKER.—An article hastily written last winter, and under extraordinary circumstances sent off by the Editor of the Horticultural Department of this paper to the printing office unfinished, appears to have been entirely misunderstood by the Rural New-Yorker. That paper was referred to as containing "a *copied* article, ascribed to the Cultivator, [that article] giving as new and valuable the twenty times exploded humbug, of raising fruit trees of different sorts from cuttings, by dipping the lower end in wax or tallow."

The two words above in brackets were omitted by mistake, and hence the Rural New-Yorker has supposed that we meant to charge *him* with endorsing the humbug, a thing not true, and never intended nor thought of by us. And we only noticed it, because that paper copied the humbug, *as credited to this paper*,—placing us as its author,—and thus, however unintentionally, doing us great injustice.*

This was all explained in a note from the Editor of the Horticultural Department, to the Rural New-Yorker; and a brief explanation was received too late for insertion in this paper at the time. We supposed the explanation given in that paper would be sufficient to show that he entirely misunderstood us; but as he has lately repeated his former remarks, most singularly and unaccountably charging us with a "libel," we furnish the above brief explanation. His sense of justice will perhaps suggest to him whether, first and last, he has not said many more unjust things of us, than we have apparently said of him.

* This paper being the oldest of the name, and the only one in the United States *without any other distinctive epithet*, was regarded by every one as the paper meant by the term *Cultivator*.

CALAMUS, OR SWEET FLAG.—A correspondent at Ellsworth, Ct., wishes information in regard to the best mode of eradicating this plant from his moist meadows. Can some one tell the best way?

## Albany Prices Current.

ALBANY, October 20.

FLOUR.—We have had during the month a dull market for flour, and although the quotations show no important change, the tendency has been downward. The aggregate receipts of flour so far this season, are still far in advance of the receipts to the corresponding period last year; this with a limited export demand leaves a large stock on dealers' hands in New-York. The stringency in the money market has prevented any speculative movement in flour, which the present low prices would otherwise have produced. Flour in England continues to rule low, Western Canal being quoted at 15a18s., Philadelphia and Baltimore 18a19s., Ohio 18a20s., and Canadian 18a19s. 6d. The sales of the month are 31,000 brls. at $3.75a3.87½ for State, $3.75 a4 for fancy State and Ohio and Michigan, $4a4.25 for good to fancy Genesee, $4.25a4 50 for extra Ohio, and $4.50a5 25 for extra Genesee.

The demand for Corn Meal has been steady with sales 4500 to 5,000 bags at $1.15½a1.18¾ per 100 lbs. The Buckwheat trade has opened with a brisk demand from store at $2a2.25.

GRAIN.—Quotations of wheat follow the decline in the price of the flour, and prime Genesee is quoted at 5a6, lower than it was a month ago; the demand for Genesee at present quotations, 91c. is fair; the inferior descriptions of Western are neglected while those of a better grade are but in moderate demand; the sales are 70,000 bushels at 91a97½ for Genesee, 86c for white Ohio, 81a82c for mixed lots of do., 80c. for red do., 81c. for Ohio Mediterranean and 81½ for this State Mediterranean; the market closed at 91c. for prime lots of Genesee, with no sales of Western for some days. The only sale of Rye during the month has been 300 bushels from store at 66c. for 56 lbs. The supply of Oats both of new and old crop has been limited; prices have been variable with sales 114,000 bushels at 30a31c. for heated Western, 34a36c. for good Western, and 36a37½c. for do. State closing at 34a35c. for Western and 36c. for State. The sales of Corn during the month aggregate 230,000 bushels; the receipts by Canal continue very large and are confined exclusively to Western mixed, much of which comes forward in an unsound state; the Eastern and distilling demand is good; the market closes at 48a54c. for lots more or less unsound, and 54a55 for good to prime lots of Western mixed, show a decline on the quotations of this day month of 2a3c. Barley comes forward steady, but the receipts are far behind those to the corresponding period last year; the deficiency to the present time amounting to upwards of 300,000 bushels The quotations during the month have been very uniform and the range between the two descriptions of Barley is wider this season than it was last. Quotations may be given at 72a74 cents for ordinary to prime two rowed and 78a80c. for four rowed, including a load to arrive soon at 80c.; samples of four rowed slightly mixed sold at 75a75½c. The sales of the month are 370,000 bushels.

The Liverpool quotations for wheat, U. S. red, per 70 lbs. 4s. 9da5s.; do white and mixed 5s. 1da5s. 6d.; Canadian red 4s. 9da5s. and whtie 5s. 2da5s. 6d. Indian Corn, yellow, 26a27, white do. 27a28s 6d.

WHISKEY has been in nominal supply during the month; the sales have been light, closing at 21c. for S. P. and low proof Ohio.

FEED.—Sales 50,000 bushels at 12½a14c. for shorts, 15a21c. for second quality and 100a110c. for fine middling.

HOPS.—There is a large speculative movement going on in hops; in the hop growing districts of this state, the prices paid are full as high as in this market, 25a26c. being freely given for all that can be obtained, and taken on the spot; the retail demand here has been supplied at 25a26c., and on Saturdy a sale was made from store of 12,000 lbs. at 26c., and within a few days a sale of 10,000 lbs. has been made in this city at a figure above our quotations. To day bidders generally ask 30c. for larger lots, while retail sales are making at 27c.

PROVISIONS.—The market is confined to a limited retail trade.

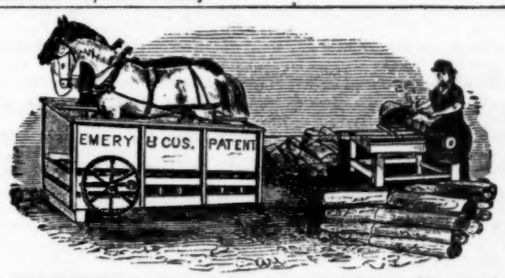
WOOL.—The market here is neglected. At Boston, on the 10th, the demand for domestic wool had been good for some days, and the sales larger than for a long time past, at prices rather in favor of buyers. The transactions add up 350,000 lbs. fleecs, at about 43a46c. Saxony, 39a41c. Full blood, 37a38½ do., 34a36½ do., 31a33 common. Prices are still rather unsettled for the article, as the drouth which prevails in all directions keeps manufacturers out of the market. In foreign wool, sales of 50 bales washed Portuguese, on private terms. Besides the export of 592 bales foreign wool, noticed last week, 1,500 bales more are ready for shipment to Europe, and only waiting a low freight.


**Trees! Trees! Trees!**

THE subscribers would respectfully solicit a share of the public patronage in the purchase of all kinds of Fruit and Ornamental Trees, Shrubs, &c.

All orders accompanied with the cash, or satisfactory reference, will receive prompt attention. SHEPPARD & CHERRY,
Nov. 1—1t.* River Bank Nursery, Rochester, N. Y.

*References.*—A. Saul & Co., Newburgh, N. Y.; Wm. Reid, Elizabethtown, New-Jersey.




**EMERY & CO.'S Premium Horse Power.**

THE subscribers offer to the Public with renewed confidence, their Superior HORSE POWERS, THRESHERS, and SEPARATORS—as their success in competion with other Powers, during the fall, has shown that in the opinions of committees and the public we have the best Railroad Horse Power for general and particular purposes. Prices are as advertised in former numbers of the Cultivator.

New-York State and Michigan Agricultural Societies, gave to above their first premiums. EMERY & CO,
369 and 371 Broadway, Albany, N. Y.

**FOWLS AND EGGS.**

THE great desire manifested in New-England for procuring good Poultry, has induced H. B. COFFIN, *Newton, Mass.*, to pay particular attention to breeding and importing first rate stock. All persons desirous of having the purest and best to breed from, may depend upon being faithfully served. Among many kinds of Fowls for sale by him, are the following, which he is very particular in breeding.

Shanghae—Forbes stock.
Imperial Chinese—Marsh stock.
Cochin China—Coffin do
White Shanghae do do
Black Shanghae do do
Golden Poland, or Spangled Hamburgh.

Dealers in Fowls or Eggs for hatching, supplied upon liberal terms. Orders addressed to *No. 5 Congress Square, Boston*, will be promptly executed.

Reference to Mr. J. VAN DUSEN, of Cincinnati, Ohio, who will take orders for Fowls, as advertised above.

Boston, Aug. 1, 1851—12t.

## ANALYTICAL LABORATORY,

*Yale College, New-Haven, Connecticut.*

JOHN P. NORTON, PROFESSOR OF SCIENTIFIC AGRICULTURE.

THIS Laboratory is now fully organised for instruction in all branches of analyses connected with the examination of soils, manures, minerals, ashes, animal and vegetable substances, &c. Full courses are given in each of these departments, and also in general Chemistry, both organic and inorganic.

Students can thus fit themselves to become instructors in the various branches of Chemistry, or to apply so much of that and kindred sciences as may be necessary to the practical pursuit of agriculture or manufacturing. The demand for teachers and Professors in the various branches of chemistry, especially Agricultural, is now great and increasing, so that this is now a fair field for those who have a taste for such pursuits.

A course of Lectures on Scientific Agriculture, by Professor Norton, commences in January of each year, and continues for two and a half months. This course is designed especially for the practical farmer, and has given great satisfaction to those who have attended it in previous years. It embraces a plain connected outline of the leading points in improved agriculture, treating in succession of the composition of the soil, the plant and the animal; of their connections with each other, and of all the improvements in cultivation, manuring, feeding and fattening, which have been adopted in the best agricultural regions. This course is made so plain and practical, that the farmer who attends it can understand the whole, and apply it in his own experience.

More can be learned by attendance upon such lectures, by reading in connection with them, and by associating with others who are also desirous of obtaining a better knowledge of their profession than in years away from such advantages. The young farmer learns to think for himself, to see that a practice is not necessarily right because it is old, to understand the reasons for all that he does, and with this increase of knowledge is better able to make farming profitable as well as interesting.

Board and lodging may be procured at from $2 to $3 per week, and the Ticket for the Lecture is $10.

In connection with the Lecture is a short Laboratory course, by means of which those who desire it, are taught to test soils, manures, marls, &c., in a simple way, and to make many elementary examinations of a highly useful character. The charge for this course is $25.

To those students who go through the full Laboratory course, the charge is about $200 per annum, and they can be admitted at any period of the year at a proportional charge.

For further information apply to Prof. JOHN P. NORTON, New-Haven, Conn. June 1, 1851—8t.

## THE FRUIT GARDEN,

A TREATISE intended to illustrate the Physiology of Fruit Trees, the theory and practice of all operations connected with the Propagation, Transplanting, Pruning and Training of Orchard and Garden Trees, as standards, dwarfs, pyramids, espaliers, &c.; the laying out and arranging different kinds of Orchards and Gardens; the selection of suitable varieties for different purposes and localities; gathering and Preserving Fruits: Treatment of Disease; Destruction of Insects; description and uses of Implements, &c. Illustrated with upwards of 150 figures, representing different parts of Trees, all practical operations, forms of trees, Designs for Plantations, Implements, &c. By P. BARRY, of the Mount Hope Nurseries, Rochester, New-York. 1 vol. 12 mo.

"This book *supplies* a place in fruit culture, and that is saying a great deal, while we have the popular works of Downing, Thomas and Cole. Mr. Barry has then a field to himself, which he occupies with decided skill and ability."—*Prairie Farmer.*

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"The work ought to be in every family in the United States."—*Ashtabula Sentinel.*

"The work is prepared with great judgment and founded on the practical experience of the author—is of far greater value to the cultivator than most of the compilations on the subject."—*N. Y. Tribune.*

"It is one of the most thorough works of the kind we have ever seen, dealing in particulars as well as generalities, and imparting many valuable hints relative to soil, manures, pruning and transplanting."—*Boston Gazette.*

"A mass of useful information is collected, which will give the work a value even to those who possess the best works on the cultivation of fruit yet published."—*Evening Post.*

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*Established* 1830.

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We do not boast of the size of our Catalogue, but of the number and beauty of our trees.

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MANUFACTURERS of *Garden Implements and Farm Machines*, and growers and Importers of SEEDS and TREES, 8 and 10 Gerrish Block, Blackstone-st., Boston. April 1—tf.

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Orders solicited from, and work sent to any part of the United States. I. T. GRANT & CO.
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4th. The Bogardus Power for one to four horses, a very compact machine and adapted to all kinds of work. They are made entirely of iron. In addition to the above, we have several other kinds of well approved powers, together with all the various kinds of under and over shot Threshing Machines ever made. Also the largest and most complete assortment of Agricultural and Horticultural Implements, Field and Garden seeds to be found in the Union, all of which will be sold upon the best terms and at the lowest prices. Persons in want of any of the above articles will find it greatly to their advantage to call on us before purchasing elsewhere.

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THE STATEN ISLAND DRAINAGE TILE COMPANY are nowprepared to supply Agriculturists with the above named tiles of the most approved patterns.

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The establishment is at *Latourette's Point, Fresh Kills*, near *Richmond, Staten Island*, and boats drawing four feet water can enter the yard and load at the kilns. Address

H. K. BALL, Stapleton, S. I.

The Tiles will be found on sale at A. B. ALLEN & CO.'S, Nos. 189 and 191 Water-Street, N. Y., and at GEO. H. BARR'S State Agricultural Warehouse, No. 25 Cliff-Street, New-York.

Staten-Island, Aug. 1—tf.

## A very Desirable Farm for Sale.

I Offer to sell my farm of 320 acres, situated four miles south of the village of Oxford, Chenango county, N. Y., and near the river and canal. 250 acres of it are under high cultivation, and well and durably watered. The remainder is well timbered. The fences are chiefly stone, and in good repair. It has a large two story mansion, five large barns and sheds, in good repair. It is admirably adapted for a dairy, or for grazing and grain—and has a fine orchard of grafted fruit The farm, for profit, health, and beauty of scenery, cannot be surpassed. It is fully supplied with farming tools and stock, and 130 tons of hay, all or either of which may be had with the farm. The farm can be conveniently divided. The title is perfect, price low, and terms easy. Apply to G. VANDERLYN,

Oct. 1—2t. Oxford.

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ONE of the best grazing farms in Chautauque county for sale, at $18 an acre. It contains about 220 acres, about 120 acres of which is under a good state of cultivation. The buildings and fences are good, and there is on it a good orchard of grafted fruit. A part of the purchase money can remain under a bond and mortgage for a term of years if desired. The title is perfect. For information inquire of JOHN D. PATTERSON,

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## A Choice Farm in Ohio for Sale,

LOCATED in Stark county, three and a half miles south of Massillon, containing three hundred and three acres, about two hundred and twenty-five acres cleared, and in a high state of cultivation. The balance in timber, principally white oak.

The improvements consist of a frame tenant house and barn, a Gothic Cottage, built of stone, beautifully located, commanding a view of the whole estate; a thrifty young orchard of choice apple trees, &c.

The cleared land is a level plain, soil of a superior quality for the production of wheat, free from stumps, and all obstructions to a good system of cultivation. The timber land is what is termed rolling, and elevated about thirty feet above the plain. The Erie and Ohio canal pass through the farm, forming the western boundary, and the Pennsylvania and Ohio Railroad within three miles. In short, it is one of the most desirable estates in Ohio.

The owner being permanently located in a foreign country, is the reason for the farm being offered for sale.

For further particulars direct, post-paid, to the address of the subscriber, C. NESENER, Massillon, Ohio. Oct. 1—4t.

## Splendid Farm in Ohio for Sale or Rent.

WE have a splendid farm for sale or rent, containing about 300 acres. It is situated 21½ miles west of Columbus, and within 2½ miles of London, the county seat of Madison county. An excellent McAdamized road, from Columbus to Xenia, passes through it. The access to market either east or south, is easy and quick. The railroad from Cincinnati to Cleveland has a depot at London, 2½ miles from it.

About 125 acres of the land are cleared and under good improvement. The balance is well timbered, and the whole is under fence. It is well watered, having springs or streams in abundance.

On it is a substantial brick dwelling house and two other comfortable tenements. The orchard contains about 200 apple, peach and pear trees. The whole farm is well adapted for raising grain, or corn, and would make an admirable dairy or stock farm.

The proprietor has made arrangements in the west to go into another kind of business, and will sell the above farm on reasonable terms. If not sold by winter the above farm will be rented for a series of years.

For terms apply at this office or to

WOMBAUGH & WHEELER,

Oct. 1—4t. Real Estate Agents, Columbus, O.

## New-York Importers and Jobbers.

## FREEMAN, HODGES & CO.,

*58 Liberty street, between Broadway and Nassau-street, near the Post-Office, New-York.*

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We respectfully invite all cash purchasers thoroughly to examine our Stock and Prices, and, as interest governs, we feel confident our Goods and Prices will induce them to select from our establishment. Particular attention is devoted to Millinery Goods, and many of the articles are manufactured expressly to our order, and cannot be surpassed in beauty, style and cheapness.

Beautiful Paris ribbons, for Hat, Cap, Neck, and Belt.
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Fine embroidered reviere and hemstitch cambric handkerchiefs.
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Figured and plain Swiss, Book, Bishop Lawn and Jaconet Muslins.
English, French, American and Italian Straw Goods.

Oct. 1, 1851—2t.*

## Fruit and Ornamental Trees, at Cleveland, Ohio.

### GIRTY & ELLIOTT.

THE collection of trees offered for sale by us this fall, has been selected and grown with great care. It embraces a large variety, including all the best varieties of Fruits; as well as all the *new* Shrubs, Roses, Evergreens, &c., &c., that have been brought into notice for a few years past.

Standard Pears of one, two and three years growth.
Dwarf do do do do do
Standard Apples, do do do do
Dwarf do do do do do
Standard Cherries, do do do do
Dwarf do do do do do

Plums, Apricots, Nectarines, Peaches, Grapes, Currants, Raspberries, Strawberries, Gooseberries, &c., &c.

EVERGREENS,

Of Norway Spruce, Deodar Cedar, Cedar of Lebanon, Tree Box, English Yew, Auricarian Pines, and Balsam Firs. Our stock is very good, and among them many of extra large size. All the new Pines, Spruces, etc., etc., are on hand, and for sale, of common sizes.

15,000 Balsam Firs, small—20,000 American Arbor Vitæ, small—1,500 yards Dwarf Box, for Border Edgings, very fine and thick.

Hardy Azaleas, Rhododendrons, Kalmias, &c.

ROSES.

A very large collection of Roses, and nearly all grown on their own roots, comprising the best selections of Remontants, Bourbons, Chinas, Teas, Moss, and climbing varieties.

Green-house plants in variety, and at low prices. Catalogues will be issued, ready for delivery, on the 1st of September, and forwarded gratis to post-paid applicants. GIRTY & ELLIOTT.

Sept. 1—3t.

## SYRACUSE NURSERIES.

THORP, SMITH, HANCHETT & CO., proprietors, Syracuse, N. Y., having 100 acres closely planted to Fruit and Ornamental Trees, Roses, Shrubbery, Green House Plants, &c., we shall have for sale the coming season, a most extensive stock of Nursery commodities, not to be excelled in size and beauty by those of any establishment in the Union. Nurserymen, Amateurs, Orchardists, and Venders, are earnestly invited to call, examine and judge. Our stock of

STANDARD FRUIT TREES,

Comprises all of the best varieties of Apple, Pear, Plum, Cherry, Peach, &c., of such sizes and quality as no contrast can disparage We have also, both by importation and of our own cultivation,

PYRAMIDAL, OR DWARF TREES,

Of the Apple, Pear, and Cherry, designed for compact planting, being thereby *especially* desirable for small lots, Gardens, &c., as well as *generally* so, by reason of their habit of early bearing. We have all of the approved varieties cultivated in this form, from one to four years old—many of the Apples and Pears being now in bearing.

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For the street border, and lawns, our stock is very large. Our Horse Chestnuts and Mountain Ash are particularly noticeable for their luxuriant growth and surpassing symmetry of form. They uniformly excite admiration.

*Evergreen Trees*, in great variety, new and rare, including Lebanon and Deodar Cedars, 4 to 6 feet high; Japan Cedars; Spruces; Junipers; Taxodiums; &c.

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*Roses*—A most extensive assortment, comprising 6000 plants of the best varieties, and all the new acquisitions; amongst them the new Perpetual Striped Moss, Herman Kegel, the Hybrid Perpetual, Caroline de Sausel, Gen. Cavignac, Gen. Changarnier, &c.

*Bulbous Roots*—A choice collection daily expected from Holland, consisting of Double Tulips, Hyacinths, Crocuses, &c.

*Plants* for bedding out, of every description; *Vines, Climbers, &c. Cherry, Apple, and Pear Seedlings; Buckthorn*, two and three years old, very strong plants.

All of which will be sold as low as at any other establishment, and in many cases lower, either at wholesale or retail.

We are now issuing a new edition of our Catalogue, containing full information of our productions, terms, prices, &c., embracing, 1st, a general descriptive catalogue; 2d, a full catalogue of select Green House Plants; and 3d, a special catalogue of Dahlias, Phloxes, and Bedding out plants; which will be sent gratis to all post-paying applicants.

☞ Mr. H. Warren, proprietor of the Agricultural Store, 315 River Street, Troy, N. Y., is our authorized agent to receive orders.

THORP, SMITH, HANCHETT & CO.

Syracuse, Oct. 1—2t.

## Dana's Muck Manual.

JUST published, by JAS. P. WALKER, Lowell, Mass., a new, revised, and greatly enlarged edition of the MUCK MANUAL FOR FARMERS, by Dr. SAMUEL L. DANA. The increased size of the work, (345 pages,) compels the publishers to put the price at 87 cts. in paper, (and not 75, as advertised a few weeks since,) and $1.00 in neat cloth. For sale in Albany, by Messrs. E. H. PEASE & Co.; in New-York, by Mr. C. M. SAXTON. Oct. 1—3t.

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## ANDRE LEROY,

### Nurseryman, at Angers, France,

RETURNS his thanks for past favors, and begs leave to inform his friends and the public in general that his catalogue for 1851 is now ready and can be had on application to his agent Mr. E. Bossange, 138 Pearl street, New-York. He offers for sale a large collection of the finest fruit, forest and ornamental trees of all kinds, shrubs, roses, &c. &c. The superior quality of his trees is already known in the United States, and the experience he has of packing up trees to be sent abroad gives him a noted advantage over all other Nurserymen. Orders had better be sent early, although his Nursery is the largest in France, the number of some new kinds of trees are limited and some of the last orders sent last year could not be executed. The terms, prices, charges, and all desirable information will be found in his catalogue. The trees will be shipped to the care of his agent in New-York, who will attend to the receiving and forwarding. For further particulars and for the catalogue apply to

Nov. 1, 1851—3t. E. BOSSANGE, 138 Pearl street, N. Y.

## FANCY POULTRY.

THE subscriber has for sale several pair of white and yellow Shanghaes, Dorkings, Creole or Bolton Grey, Golden Pheasants, small clean legged Bantams, and Frizzled fowls. Any of the above breeds cooped and delivered in Albany or New-York city free of charge. All orders promptly executed. W. H. SOUTHWICK,

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## Prince's Linnæan Botanic Garden and Nurseries.

WM. R. PRINCE & CO., Flushing, near New-York, offer their select and unrivalled collection, comprising Fruit and Ornamental Trees of the laagest sizes for transplantation.

30,000 pears in a bearing state, three to seven years growth, and a great number of smaller sizes.

Apples, Cherries, Plums, Peaches, Nectarines, Quinces, and other Fruit Trees of two to five years growth.

Evergreen Trees of large sizes, comprising Norway Spruce, Hemlock, and White and Blue Spruces, Balm of Gilead Fir, Arborvitæ of six kinds, Sweedish and Irish Junipers, and Pines of various rare species. Also, Cedar of Lebanon, Deodar Cedar, Cryptomeria, Araucaria, Mahonia of different species, Abies morinda, Tree Box of different kinds, 50 varieties of Rhododendrons, green and variegated Japan Euonymus, and Irish Yew, all of good size. The collection of Evergreens is unequalled.

Deciduous Ornamental Trees and Shrubbery, of the largest sizes, suitable for imparting immediate ornament. Also, 25,000 Roses of the Daily, Perpetual, Moss, and other varieties on their own roots and none budded.

10,000 finest Foreign and American Grapevines, including several native varieties superior to the Isabella. Above 100 beautiful Chinese double Herbaceous Pæonies, and 40 very splendid varieties of the Tree Pæony, many of which are large plants

A large collection of Bulbous flower roots and Herbaceous flowering plants at low rates.

The new Supplement Catalogue just issued, comprises all the estimable varieties of Strawberries, including 30 splendid varieties never before announced, together with the new Californian Trees and plants and the novelties of every class latterly brought to notice. Priced catalogues in three parts will be sent to post-paid applicants who enclose stamps. Nov. 1—1t.

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The Trees are of large size, thrifty growth, and well rooted, and can furnish nearly all the new varieties ordered, and will sell at the lowest market prices.

Ornamental trees being grown extensively, can be furnished by the hundred at very reasonable rates. European Linden, Mountain Ash, Scotch Elm, English Elms, English Sycamore, Weeping Willow, with a good collection of Roses, Green-house plants, &c., all which can be supplied in quantities to suit purchasers. Catalogues will be forwarded to all applicants.

Nov. 1—1t. H. SNYDER, Nurseryman, Kinderhook.

## STATE AGRICULTURAL WAREHOURSE.

EMERY'S, Kell's, and Wheeler's Horse Powers and Threshers. Hovey's, Clinton's, Tower's, Sinclair's and Botts, Straw and Stalk Cutters.

Vegetable Cutters for slicing up potatoes, beets, &c.

Corn Shellers of various patterns.

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Harrows of Geddes, Triangle and Scotch patterns.

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Subsoil Plows, of Weir's pattern, which is half the draft of the old style.

Ox or Road Scrapers, Seed Sowers, Cultivators, &c.

Field and Garden Seeds.

Fertilizers, such as Guano, Bone dust, Bone Coal, Plaster, Poudrette, Bone Manure and Sulphate of Soda. For sale by

GEO. H. BARR,

Nov. 1—1t. No. 25 Cliff street, New-York.

## To Farmers and Planters.

THE subscriber has made a contract for a large quantity of bone dust, ground fine, also, for the sawings and turnings of buttons, which he offers for sale at $2.25 per barrell, including package, warranted pure. Owing to the large demand this season, many were disappointed in getting their supply, without paying exorbitant prices (elsewhere.) Farmers and Planters will please send in their orders at their earliest convenience, stating the quantity they will want, and at what time the same is to be delivered. It is necessary to have their orders at this season to enable me to reserve for them their supply in the spring or earlier. If they desire, now in store, Peruvian guano, Bone black, Wood's Renovating Salts, Potash, Oil of vitriol and Poudrette.

GEO. H. BARR,
State Agricultural Warehouse,

Nov. 1—1t. No. 25 Cliff street, New-York.

## A RARE CHANCE!

POMONA FARM FOR SALE—consisting of 120 acres of excellent land, including a young Orchard of Fifty acres, containing over five thousand trees, of the choicest kinds of apple and peach, selected with especial reference to market purposes—the apples mostly of the longest keeping varieties, designed for the Southern markets. The peach trees are planted alternately between the apple, so as to be removed by the time the latter will need all the ground. About half of the trees have been planted two years, the rest one year, and a thousand or more of the peach may be expected to bear fruit the coming season. In a very few years, it is believed, one good crop of fruit from this Orchard will be worth sufficient to pay for the entire purchase of the farm.

Pomona Farm is situated near the village of West Jefferson, 14 miles west of Columbus, O., at the intersection of the National Road, Xenia Turnpike, and the Columbus and Cincinnati Railroad, and within 100 rods of the Depot; affording excellent facilities for transporting fruit and other products to market. The situation is beautifully elevated and undulating, and remarkably healthy, and is well adapted for fruit and grain growing, poultry raising, &c. About 100 rods of Osage Orange Hedge was planted on the premises last spring, and plants are now ready for completing the enclosure of the orchard the coming spring, if desired. This property was purchased and improved by the proprietor for his own permanent use, but finding it inconvenient to attend his business in town and this at the same time, he has concluded to allow some one else to reap the fruits of his labor, only asking a small return for his expenditures.

For particulars, address, M. B. BATEHAM,

Nov. 1, 1851—1.* Editor Ohio Cultivator, Columbus, Ohio.



## THE CULTIVATOR

*Is published on the first of each month, at Albany, N. Y., by*

LUTHER TUCKER, PROPRIETOR.

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